



SATURDAY, OCTOBER 30, 1875.

## Hall's Safety Switch Signal.

We have received a description of a method of switch protection which has recently been applied by the Hall Railway Signal Company upon one of the Boston lines at a point of great danger, with the promise of excellent practical results.

In the above diagram it will be seen that the switch is located at the end of a curve. Directly in front is an overhead bridge which completely obstructs the view until the train has reached a point within a few rods of the switch. The signal is placed some five hundred feet from the bridge. This signal, in its normal condition is always set at danger, showing a red target. Track instrument No. 1 is placed 2,000 feet from the signal. Now, a train approaching from the left, as shown by the arrow, should raise the target from danger to safety by contact of its wheels with the lever of track instrument No. 1, by which the electric circuit is completed, which raises the signal. This it will do, provided the main line is clear. After passing the switch, the train will operate track instrument No. 2, which is placed just beyond it. The purpose of this instrument is to let down the signal, previously raised to safety, to its original position of danger.

These will be the effects produced when the main line is clear; but in case the switch is misplaced, the passage of the train over track instrument No. 1 will produce no effect upon the signal, and it will remain set at danger to warn engineers of the condition of the switch, and in no case can it be raised to safety while the switch is turned from the main line.

Those who are familiar with the operation of the Hall signals understand that they are worked by electro-magnetism, which vitalizes the magnets attached to the mechanism which raises or lets down the signals, the train operating them automatically by contact of its wheels with the levers of the track instruments. Now the electric circuit from track instrument No. 1 (which should raise the signal) passes through a cut-off or circuit-breaker in an instrument connected with the switch, and when the switch is set for the main line, this cut-off is closed, and the circuit is complete, which enables the train to raise the signal to safety, while the act of throwing the switch from the main line opens the cut-off and breaks the circuit, thereby rendering track instrument No. 1 inoperative, and in consequence the train is blocked by the immovable red target.

Should the switch be turned from the main line after the train has passed track instrument No. 1, then the signal would show safety and give no warning to the engineer of the open switch, and a false signal would lure him to danger.

To provide against such an occurrence, the movement of the switch from the main line completes a second electric circuit within the switch instrument, which serves to let down the signal to danger even after the train has passed the track instrument. For still further security, a bell is rung at the switch by an electric circuit from the signal, which is completed whenever the signal is raised to safety; in this manner the man at the switch receives notice of the approach and locality of a train to caution him against moving the switch until after it has passed. Thus a train is protected from all possible hazard from the open switch, and safety is assured to the engineer when the line is clear by the disappearance of the danger signal from sight; furthermore, the normal condition of that signal being danger (as has been shown), from which it can only be changed by the proper action of the circuits and instruments, any derangement of them could only result in blocking the train until the difficulty was ascertained.

## Railroad Passenger Business.

[An address read before the Semi-annual Convention of the General Passenger and Ticket Agents' Association in March, 1875, by Samuel Powell, General Ticket Agent of the Chicago, Burlington & Quincy Railroads, Secretary of the Association.]

It is a theme as broad and fertile as our Western prairies, and as prolific of topics, as they are of crops, under good and intelligent cultivation.

Who among us at a glance fully comprehends the rapid growth and extent of passenger transportation? It is only when the mind reverts to some old picture of the early trains, or we look back to other times, or more particularly when we chance to get into some old coach, with its small windows and low roof, that we feel the contrast, and realize fully the conveniences and comforts of to-day over those of a few years ago.

It is but thirty or forty years since a train, consisting of an engine and three passenger cars (many of you have seen its picture, being quite common in railroad offices), was run on the road west of Albany, now a part of the great New York Central. It is a crude picture, but not less so than the train. The motive power was a rude affair, which in these days of grand and powerful machinery would scarcely do service in a shingle mill of the primeval forest. We can smile as we look at the barrels of wood, standing on the platform of the wagon next the engine, as well as the other appurtenances connected with it, and contrast that simple affair with a locomotive of the present day. The passenger cars need not be depicted, for each has in his mind's eye the exact form and contour of the whole

train far better than can be put on paper, except by an artist. It is said that among the passengers of that noted train—and it was noted to the extent of being thought worthy of preservation as a picture—were some men who have since made for themselves a national reputation, and are still among the living. Thurlow Weed is said to be one of them, and yet he is in active life.

In the *Railroad Gazette*, a few months since, was a picture of one of the first engines run on the Baltimore & Ohio Railroad, some forty years ago. This engine, unlike that of the New York Central, had an upright boiler. Two gentlemen now connected with the Illinois Central Railroad, in active duty, ran one of those engines between Baltimore and Washington, as engineer and fireman.

Attention has been called to these pictures, simply for the purpose of more forcibly drawing the contrast, which each one has formed in his own mind, of the rapid strides that have been made in these few years in the way of "speed, comfort and safety" to the traveling public. It seems hardly possible that as much will be accomplished in the next thirty years, in the way of progress, as has been in the last thirty, but I think no one would care to hazard the opinion, that those who live to see that time will not also see very great changes, even from the present. We cannot readily see wherein great improvements can be made, as we are inclined to the opinion that the acme of invention has been nearly reached; that the ladder of improvement has been nearly climbed; that nothing further is needed in that direction; that "necessity is no longer the mother of invention," our wants and wishes being met by what we already have. This is undoubtedly true, as far as we are able to see, but the fertile mind of the inventor is continually at work, solving the problem, that *progression* is the order of the day, and as a consequence, every little while we see something brought out that fills a hitherto vacant space, or is an advance on the old method, and thus we go on from improvement to improvement so gradually, as to us is scarcely noticeable. The traveler of 1900, however, may be able to see wherein the appliances for the aforesaid "speed, comfort and safety" of that period are beyond those of 1875, as we of 1875 can see that those of this day are beyond those of 1850.

We meet together in association twice each year, mainly for the purpose of revising and correcting our schedule of rates, although there are many other things acted upon from time to time that greatly contribute to the general good. The schedule of rates has become almost absolutely necessary, from the fact that the lines of railroad, intersecting as they do each other so frequently all over the country, and especially in the middle portion, renders it extremely difficult for any one general ticket agent to make up a list of rates, from any series

its usual number of cars, an additional one can be added at a very low price, and that the railroad company is benefited to the extent of the amount received for the use of that car, even though it may have been hauled for a rate that is less than the average cost of a car per mile.

This may be true as regards one car; but carry out the sequence, and apply it to any number of cars, will the result justify any railroad company in carrying out the principle thus laid down or claimed?

Because an additional car or cars can be hauled without incurring any seeming additional expense, the benefit of the low rate thereby accruing to a particular class or party, it can be proven, by the same false reasoning, that if all parties using the trains of a railroad company were allowed the same special privileges—and it cannot be denied but that all are equally entitled to them—the net results of that company would be very seriously impaired.

I will grant, for the sake of the argument, that a railroad company may make concessions to a party of people, whether large or small, and thus gain a temporary advantage over a competitor, but I am prepared to sustain the other side of the argument, that the "game was not worth the powder," for the simple reason that on the next opportunity the aggrieved will go beyond the aggressor, and the consequence is, stability of rates is out of the question.

I think it may safely be said that no one can be so conceited as to believe that he can monopolize this method of over-reaching a competitor, and thus secure for his company any considerable advantage. It is sure to react—the gain of to-day being counterbalanced by loss on the morrow.

This has been carried to a great extent by the readiness of railroad officials to cater to the wishes and solicitations of itinerant parties—parties who wish to use a line of road but once—especially those emigrating to a section of country far removed from the line that gives the reduction, it being generally the case that the road which ultimately locates the emigrant on its line makes no considerable reduction from regular rates.

So great an evil has this method of competition become, as you all well know, that if a small company of people, say five or ten, wish transportation to a certain point, it is the practice, the common practice, to go from one to another of the roads in competition, and solicit a reduction from the regular and agreed rates, and I am sorry to say that it is a rare exception, owing to the weakness exhibited on the part of railroad officials, that they do not succeed in their endeavor to a greater or less extent. The practice of giving reductions to this class of people, *first-class emigrants*, is an outrage on the regular patrons of a road, who assume that the rates charged in the regular ticket offices are standard, and are not deviated from, and therefore deal

directly and without question with those ticket offices. If any class of people are entitled to special rates it is that class who are the regular and habitual patrons of a road, and not that class who are generally the recipients, and therefore the practice cannot be defended on any principle of fair dealing and honesty of purpose.

Could any general ticket or passenger agent take out a patent for this kind of illegitimate practice, there might be some slight shadow of some in it; but when the field is open to any one who may be disposed to enter the lists, it has the appearance of being the height of folly, and one that can and should be brought to a speedy termination.

Every Spring and Fall we see this same maneuvering being practiced, and if it is but known that a party are to emigrate from a certain section, these

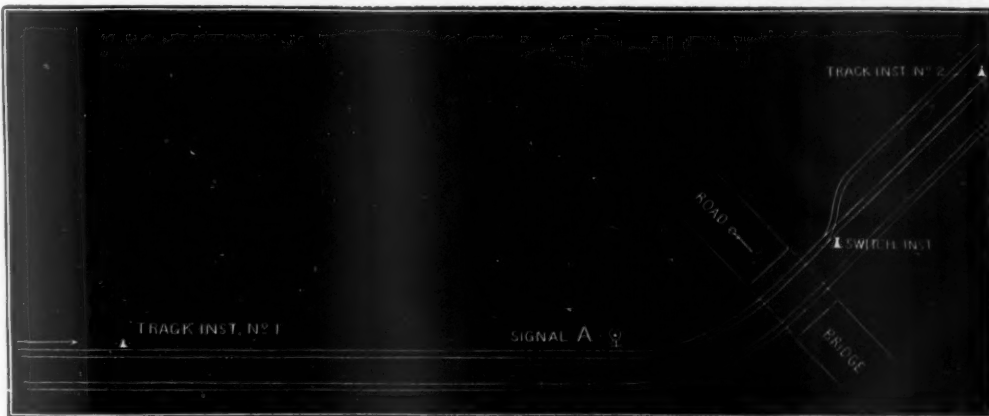
you will find the agents of the road in competition, bantering and dickering away the substance, until but the shadow remains. Would these same men confine their efforts to straight and legitimate travel, there is not a question but that all would be better off. Reductions of the kind mentioned do not in any way add to the number of passengers to be transported, and hence it follows that passenger receipts are diminished precisely the amount given to individuals, who take the time and trouble to go from one to another until they find some one who, for fear that his road may not get the few dollars this person has to part with for the transportation of himself and family, makes a special rate, and then thinks he has done a wonderful thing. Individuals are not to be blamed for seeking special privileges and special rates. We all like them, but the railroad companies are wholly responsible for this fast and loose way of transacting their business. My friend makes a concession for this party, and I for that. He will not allow me the monopoly, neither will I allow it to him; and if any one will tell wherein either of us has made anything, he will confer on the fraternity at large an obligation that will not soon be forgotten. My friend, advocate and promulgator of special rates, here is an opportunity for you to achieve a name as well as fame.

I am well assured that if an honest and persistent effort was made by those in authority to correct this large and growing evil, a healthy and beneficial result to the finances of the passenger department would certainly follow. It is a trite remark that the man who causes two blades of grass to grow where but one grew before is a philanthropist and benefactor of his race; but what can be said in defense of a practice which, if persistent and industriously followed, does not increase by one the number of passengers to be transported, but does diminish the receipts to be obtained from those who are to be transported, and who otherwise would pay the regular current rates?

Purify the source of the streams, permit nothing impure to enter them as they flow on, and the ocean to which they are tending will also be free from impurity. So with us; each can regulate his course so as to correct this evil. Permit no irregularities that will not stand the closest scrutiny, and the passenger business will be free from much that now renders it perplexing. The whole matter lies within the compass and jurisdiction of those of our Association, and if all were imbued with an honest endeavor to maintain the right without any purpose of underhand work, a revolution would inevitably succeed that would be beneficial to all interested.

Under the present state of things, this company will to-day get the start of that company, but as sure as the sun will rise on the morrow, the one that over-reached his neighbor to-day, and thereby secured what is called a gain, will be met on the morrow by a corresponding action, that will in effect neutralize the benefit thought to be gained.

Do not be deceived in believing that you are doing a good work for your company by entering upon any course of action that requires a constant covering up, with the hope, and perhaps belief, that being more expert, or sharp, as some may call it, you have over-reached your competitor, secured a few passengers, and thereby a few dollars for your company. I cannot believe that the men in charge of our great corporations,



HALL'S SAFETY SWITCH SIGNAL.

of points to other points, and have them agree with a like list, to and from the same points, made up by any of his associates. By the means of the schedule made up in convention, at which all can be present, we are able to determine and agree upon the rates to and from the principal points in the country, and thus have common rates, at which tickets are sold, being alike in contrary directions. Without the schedule the chances are, that while the rate between two certain points would be at one figure for one direction, another rate would obtain in a contrary direction. I do not pretend to say that the same result could not be accomplished without the semi-annual meetings of the Association, but I do say that with them our labors in this respect are very much simplified, and the results more equitable and reliable.

In the matter of rates we have a common interest and work harmoniously, because it is said that figures will not lie—unless they are set down wrong. In making up our rates, being governed mainly by the local tariffs of our respective roads, we get along very smoothly, harmonizing the conflicting interests on the basis of the "short line," whether of distance or of rates, as the case may be. This mutual understanding is vastly more perfect of late years than formerly, and is mainly attributable to the smoothing influence of personal contact, which could not have been had as a whole, except for the meetings of the Association. It has been remarked, whether in sober earnest or not I am not sure, "that our meetings serve the purpose of what is called a good time more than anything else;" but am I not correct in saying that for those who take a lively interest in making up the rates, the three or four days they are engaged on them are as laborious as any work they do in the interim of the meetings? It is no boy's play to sit for six or eight hours a day making rates, and if any one is disposed to doubt this, let him but try it, and disabuse his mind of the delusion.

There are points, however, coming within the personal jurisdiction of each member, in which there is not that vein of harmony, that unity of purpose among us there should be. Chief among these points is the want of unity and high moral action, in the manner of conducting what is generally known as the outside work.

The subject that I shall principally attempt to bring before you is the elevation of the standard under which we claim to be enlisted—the best means for making the best results for each of our roads in this branch of the business.

In treating this subject it will be necessary to use some plain words, and which I believe to be true; but, I purpose to beg the question, and disclaim any imputation of being deeper in the mysteries that pertain to this particular branch of the work than any one else, and do not draw from my personal action to any great extent. I will assume at the outset, that by the abolition of all unfair means for the procurement of competitive business, we shall be striking at the root of the ruinous competition that has been indulged in to a greater or less extent all over the country; that, for the sake of a few passengers or a few dollars temporarily gained, the passenger business has been sadly demoralized, and the net results from competitive business reduced to a very low percentage as compared with the cost of doing the same.

It is often claimed that when a passenger train is made up to



as presidents, general managers, or general superintendents, require or expect such service at our hands. They are men of too high personal and official honor and integrity to expect or demand it; and though they may wink at any deviation from the straight path when brought to their knowledge, I am confident that if the individual members of this Association will but take the matter in their own hands, and say, as for me, I will be honest, see that those under me are equally so, carry out faithfully and fully and all agreements to the strict letter and intent, I say I am confident the managing officers would not wish it otherwise, and would help each one of us to the full extent of their power and position.

I know that some will say that this is all buncombe; it cannot be done; I will be honest if my neighbor is; I do not wish to do a mean thing of my own accord, but am forced to it by the action of my competitor—and much more of the same sort, being only varied according to the temper and disposition of the doubter.

Herein lies the principal trouble for a reformation. Each one is not willing to believe his competitor honest, simply because if an opportunity presents itself whereby he can secure a temporary advantage, he does not hesitate to avail himself of it, believing that if his competitor has the chance he will do precisely as he himself is doing.

Is not this the true solution as well as the real cause of all the trouble? We are not honest ourselves, not strictly and totally so. It would not be prudent or true to assert that all are equally dishonest, for I do not believe this to be the case. There is a wide range of thought and feeling on this subject, there being leaders and followers in this as in all other branches of business. The transportation of passengers is not so essentially different from other kinds of business that we can afford to be indifferent to the lessons which may be derived from the pursuit of a legitimate mercantile life. We do not see a merchant—and by the term merchant, I mean one who fully understands his business, there being many who bear the name, but notoriously fail to observe it—whose capital being invested in his business, sells his merchandise simply for the purpose of increasing the volume of his sales, without regard to the profit or loss that may be incurred. True, he may in times of depression or an overstocked market materially reduce the price of some of his goods, even below the cost of the same, but this is within the scope of the true merchant. He thereby may relieve himself of possible indebtedness, saving in interest what he may lose in sales below cost, and does not seriously impair his capital.

In the transportation of passengers there can be no overstocked market, and therefore nothing is to be provided for in this respect. Times of depression and slackness will and do come, but if a reduction in rates will help us out of the difficulty, the reduction ought to be universal, and not to any particular class or individual. That local reductions may not be made, whereby a large number may be induced to visit a locality for a certain purpose, within a limited time, the financial interests of a company, being greatly benefitted thereby, there is not the slightest doubt, but on the contrary, is generally accepted as true, and acted upon accordingly.

These benefits, besides inuring financially to the company, are given to the general patrons of a road, who more or less are in the use of the trains of that road at regular rates, and they are the ones to whom reductions belong of right (in case any are given) and not to those, who as said before, have occasion to use the road but once.

I presume that some will say that I, from my standpoint as the representative of a strong corporation, can take this position, and if those in competition with it, who are weaker, will adopt these virtuous measures, the company I represent will be largely the gainer, its reputation being well established. Let us see if all the benefit will accrue to the weaker party, provided he does not accept and act on this position.

All other things being equal, the passenger business will distribute itself quite as equitably under a tariff of reasonable rates as it will under one that is reduced. It is not to be supposed that I will rest easy under a cutting of rates to points which are as much mine as they are those of my competitor, without retaliating in some way, for what I am privileged to consider an invasion of my rights.

New lines of travel, and long lines of travel, are very apt to think that something of this kind is necessary in order to bring their routes more prominently before the public; but have they any surety that the old or shorter lines will not resort to like measures for the purpose of keeping their advantage? Assuredly not. The reputation of a railroad company, like that of an individual, is of too much value to be trifled with, and will be guarded in the one case quite as zealously as in the other, provided those in charge of the departments act from a sincere desire to promote the future, as well as the present welfare of their company.

We know how easy it is for an individual to lose a respectable reputation. We see or hear of cases almost daily. In these times of extravagance and "haste to be rich," the rapidity with which fortunes have been made has led many to embark in enterprises that will not bear a strict examination, and failure is the general result. At least, we can more readily trace the results of failure than of success, from the fact that when an individual succeeds in a great undertaking, we are apt to consider him as fortunate, as one possessed of rare business tact, and do not look so closely into the ways and means by which it has been accomplished as we do when failure follows.

In connection with our positions as officers of railroads, there is as much occasion for cultivating a reputation for square and honest dealing as there is in any other department of a business life. A reputation for sobriety, truth and honesty is not to be lightly thought of. It is like the keel on which rests the superstructure of the ship. Without that is laid firm and true to the line, it is useless to build upon it, with the hope that the mistakes there made can be rectified as the work goes on. The foundation must be laid on correct principles, else all that is built upon it will of necessity be imperfect.

If what has been said in regard to honesty of purpose be true, how easy to remedy the whole evil. Purify, each for himself, his own dominion, and the whole body politic will be purified. This is no idle talk, if looked at correctly—not a dream of the fancy. I know some may smile at what may be called the innocence of my heart, but my impression is that if each will sound the depths of his heart, and give utterance to the sentiments he will find imbedded there, all will agree that I am not very much, if any, out of the way.

The only real obstacle in the way of putting these principles in operation is want of faith in each other; and yet why should there be any lack in this regard? We are working for a common interest, although the private interest of each may be diverse; still, when it can be seen that whatever is for the common interest is equally for the private interest of each, in the name of all that is reasonable, why cannot it be done? I firmly believe that no road, or individual, has gained anything in the long run by trying to over-reach.

It is not better to elevate the standard of railroad morality, and initiate a day of better things, than to go on in the present way of depressing it and trailing it in the dust? It is too true that it bears the marks of many a daub and smear, but the time has not yet passed in which it may be made clean and beautiful, clear from the suspicion even of being else than it appears, the very epitome of honor and integrity. Let each take his particular part, whether it be of high or low degree, and renovate for himself as it needs. "Every heart knows its own bitterness," and each member knows just what is required in this respect that "order may come out of chaos," a consummation devoutly to be wished.

## Contributions.

### The New Charlotte Bridge.

OSWEGO, N. Y., Oct. 25, 1875.

TO THE EDITOR OF THE RAILROAD GAZETTE:

The bridge across the Genesee River at Charlotte is completed. This is a double-track, two-truss drawbridge, from face to face of abutments 300 feet. There are no fixed spans. The central depth of truss is 35 feet. The bridge is constructed to sustain a moving load of 2,500 lbs. per lineal foot, both arms loaded, or 3,000 lbs. one arm loaded; extreme panel load, 4,500 lbs. per lineal foot of track, with the usual factor for safety. It is worked by steam power. All parts fit very nicely, and in all respects it is a first-class wrought-iron bridge.

The substructure consists of one pier and two abutments of Chautauque limestone, which are built upon timber foundations, of 12x12 in. and 6x12 in. pieces, four feet thick for pier and two for abutments, well bolted together. This timber rests upon piles driven over 80 feet into the hard sand. The piles are cut off at bed of river, 24 feet below surface of water, by a circular saw attached to a vertical shaft driven by steam power. The masonry was laid in caissons of the usual form, the sides being detached from the timber bottom after completion of the work. The rest piers of this bridge are hemlock timber cribs filled with loose stone, the up-stream pier being protected by a sheathing of boiler plate. Between the rest piers and draw pier are three rows of piles 10 feet apart, braced at top with 6x8 in. braces, and tied with 3x12 in. oak plank. The outside rows are covered with 8x12 in. planks bolted to piles and reaching below low-water line. Heavy loose stone are thrown around all piers and abutments to prevent scouring.

Before the work was commenced, the river bottom was sounded to a depth of 85 feet below surface of water. Nothing was found but coarse sand. A common gas-pipe and force pump were used. Water being forced through the pipe kept the earth loosened about the bottom as it went down, rendering the progress easy and rapid.

The contractors for this work were the Delaware Bridge Company, Charles Macdonald, Engineer, for the superstructure; John Edwards, for the stone piers and foundation; and John Hunter & Co. for the timber cribs and filling. The latter are doing nearly all the contract work on this division, except the iron bridges, which are all built by the above bridge company. The timber bridges are all built by Geo. W. White.

At Charlotte 500 lineal feet of dock has been built on the company's land, a 40x96 ft. freight house and a large number of sidings. An engine-house of brick is being built, and a station house, 30x96 ft. The company is now prepared and expects to do a large business at this place, it being a lake port and there being an extensive fruit country about it.

### The First Chinese Railroad.

TO THE EDITOR OF THE RAILROAD GAZETTE:

I have read with much interest your article on "A New Field for Railroads," in your issue of 23d instant. As one of the original promoters and directors of the railroad which you mention, I am glad to inform you that some of the "enterprising and influential merchants" alluded to had a prominent share in the inauguration of the scheme, and have, indeed, given close and interested attention to the subject for years past. After encountering many obstacles, they have at last some hope of success; and should this short line lead to extensions, you would by no means have overestimated the magnitude of the field that would be opened. I believe that every practicable step has been taken to secure such a consummation, but I should tell you that the brunt of the affair has been borne by a few persons, who have by no means met with general encouragement or support. The organization is, however, believed to be adequate to dealing with all possible development of the enterprise.

Boston, Oct. 25, 1875.

### Brotherhood of Locomotive Firemen.

GALLON, Ohio, Oct. 26, 1875.

TO THE EDITOR OF THE RAILROAD GAZETTE:

The Brotherhood of Locomotive Firemen hold their second annual convention at the city of Indianapolis, during the week ending Dec. 18, 1875.

There being some 36 lodges, a big representation of delegates is expected. This organization was instituted by the firemen of the Erie Railway some three years ago, and to day it spreads its good influences over 20,000 miles of track. The objects are the elevation and protection of the firemen.

WM. N. SAYRE, Secretary.

## General Railroad News.

### ELECTIONS AND APPOINTMENTS.

**Brownsville & Redstone.**—The first board of directors is as follows: J. H. Bowman, Wm. S. Duncan, John R. Dutton, A. F. Gabler, George E. Hogg, Adam Jacobs, Brownsville, Pa.; J. J. Hazlett, Wm. Welsh, Greensburg, Pa.; Louis McFarland, F. B. Schallenburg, Irwin's, Pa.; Robert Hogsett, Uniontown, Pa. This board has elected J. H. Bowman, President; John R. Dutton, Vice-President; Wm. S. Craft, Secretary and Treasurer; Thomas B. Booth, Chief Engineer.

**European & North American.**—Mr. Frank W. Cram, General Freight Agent, has been appointed Acting General Superintendent in place of M. H. Angell, resigned.

**Kansas City, Burlington & Santa Fe.**—Wm. H. Schofield is President and A. C. Titus Chief Engineer. The office is in Williamsburg, Kan.

**St. Louis, Kansas City & Northern.**—Mr. Thomas McKissock, late of the St. Louis, Iron Mountain & Southern, has been appointed General Superintendent.

**Cincinnati, Sandusky & Cleveland.**—At the annual meeting in Sandusky, O., Oct. 20, the following directors were chosen:

John G. Deshler, Columbus, O.; George Wilshire, Cincinnati; John Atkinson, N. W. Pierce, Boston. The board elected J. S. Farlow, President; Geo. Wilshire, Vice-President; J. L. Moore, Secretary and Treasurer. Mr. Geo. Wilshire succeeds Wm. Wilshire deceased.

**Vermont & Canada.**—At the annual meeting in Bellows Falls, Vt., Oct. 22, Edward Bangs, Bradley Barlow, John Eustis, J. N. A. Griswold, W. Mixer, J. R. Nichols and Samuel Wells were chosen directors. Messrs. Eustis and Bangs are new directors, replacing F. A. Brooks and E. A. Sowles.

**Norwich & New York Transportation Co.**—At the annual meeting in Norwich, Conn., Oct. 20, the following directors were chosen: G. W. Gill, F. H. Dewey, Oliver Woodworth, Wm. T. Hart, Charles T. Clark, Simeon E. Baldwin, Gilbert W. Phillips, Moses Pierce, Charles W. Copeland. The board re-elected Moses Pierce, President; S. A. Gardiner, Jr., Superintendent; H. L. Parker, Treasurer.

**North Simcoe.**—At the annual meeting in Barrie, Ont., the following directors were chosen: J. S. McMurray, A. S. A. Manning, T. R. Fuller, A. A. Thompson, Charles Beck, Wm. M. Kelley, H. E. Jeffrey. The board elected J. S. McMurray President and Managing Director; R. R. Thompson, Vice-President; J. R. Fuller, Secretary and Treasurer.

**St. John's, Lake Eustis & Gulf.**—Mr. James E. Drake, of Lake Eustis, Fla., is President.

**New York, New Haven & Hartford.**—Mr. George H. Watrous, of New Haven, Conn., has been chosen a director in place of Ezra C. Read, deceased.

**Cincinnati, Lafayette & Chicago.**—Mr. James H. Stewart, of Madison, Wis., has been appointed General Superintendent in place of Mr. Waldron, who has gone to the Ohio & Mississippi. Mr. Stewart was formerly connected with the Sandusky, Mansfield & Newark road, and has since been Superintendent of the Winona & St. Peter.

**Concord & Portsmouth.**—At the annual meeting in Manchester, N. H., Oct. 7, the following directors were chosen: John J. Pickering, Portsmouth, N. H.; Stephen Kendrick, Franklin, N. H.; Samuel P. Dow, Epping, N. H.; Joseph B. Walker, Concord, N. H.; Samuel N. Bell, Benj. F. Martin, Nathan Parker, Manchester, N. H. The board elected Stephen Kendrick President, and Wm. H. Hackett Clerk and Treasurer.

**Indianapolis, Bloomfield & Evansville.**—The directors of this new company have elected officers as follows: President, Jason N. Conley, Bloomfield, Ind.; Vice-President, W. W. Curry, Indianapolis; Secretary, E. F. Williams, Bloomfield, Ind.; Treasurer, Wm. Mason, Bloomfield, Ind.

**Western Union.**—Mr. F. G. Ranney has been elected Secretary and Treasurer in place of F. R. May, who has resigned. His office is in Milwaukee, Wis.

**Davenport & St. Paul.**—Mr. N. H. Wood having resigned as Superintendent, that office is discontinued and the duties will be assumed by the General Manager, Mr. John E. Henry. All communications relating to the transportation of persons or property will be addressed to Mr. John L. Kellogg, General Ticket and Freight Agent.

**Indianapolis, La Porte & Michigan City.**—At the annual meeting in Michigan City, Ind., recently, the following directors were chosen: Wm. Cutting, Haywood Cutting, David Macy, A. B. Southard, V. J. Malott and Jesse Zern. The road is leased to the Indianapolis, Peru & Chicago.

**Pullman Palace Car Company.**—Mr. John McCoy has been appointed Assistant Superintendent of the Northern Division, in place of A. R. Winfield, resigned. Col. Charles Ball has been appointed Superintendent of the Southern Division, in place of H. B. Latrobe, resigned.

**Logansport, Crawfordville & Southwestern.**—Mr. J. E. Harris has been appointed General Passenger and Ticket Agent.

**Illinois Railroad Commission.**—Mr. Frederick T. Dubois has been appointed Secretary of the Commission, in place of Col. McLaughlin, resigned.

**Ohio & Mississippi.**—Col. F. M. Malone, of Pana, Ill., has been appointed General Stock Agent of the Springfield Division.

**Pittsburgh, Cincinnati & St. Louis.**—Mr. John W. Renner has been appointed Auditor. He has been Acting Auditor for some months.

**Western Maryland.**—At the annual meeting in Baltimore, Oct. 20, the following directors were chosen: Joshua Biggs, Rocky Ridge, Md.; G. W. Harris, Hagerstown, Md.; Isaac Motter, Williamsport, Md.; John Welby, Smithsburg, Md.; John K. Longwell, Westminster, Md.; Samuel H. Adams, Geo. M. Boker, Wm. A. Boyd, Jr., D. J. Foley, J. A. Griffith, E. G. Hipsley, Alexander Rieman, Wm. Seemuller, Baltimore. They are all re-elected.

**Indianapolis, Bloomington & Western.**—Mr. J. P. Buser has been appointed Western Agent, with headquarters at Burlington, Ia., and Mr. W. N. Jarvis, Northwestern Agent, with office at Davenport, Ia.

**Burlington & Southwestern.**—Hon. Elijah Smith has been appointed Receiver by the United States Circuit Court and has taken possession.

**Burlington, Monmouth & Illinois River.**—This company has been organized by the election of the following directors: for three years, M. R. Hardin, Lawrence and Jones; for two years, D. P. Phelps, J. R. Webster and Lafferty; for one year, Wm. Hanna, George Snyder and Parry. The board elected Wm. Hanna President; Delos P. Phelps, Vice-President; George Snyder, Secretary; Dr. J. R. Webster, Treasurer. The office is at Monmouth, Warren County, Illinois.

**Wolboro.**—At the annual meeting in Wolboro, N. H., recently, John Wooldredge, Frank Jones, George W. Burleigh, John M. Brackett, Joseph L. Avery, Blake Folsom and John W. Sanborn were chosen directors. The board elected John Wooldredge President. The road is leased to the Eastern.

### PERSONAL.

—Mr. Wm. Willshire, Vice-President of the Cincinnati, Sandusky & Cleveland Company, and a prominent merchant of Cincinnati, died at his residence in that city Oct. 17, at the age of 63 years.

—Dr. J. A. S. Milligan, Cashier of the Georgia Railroad, died at his residence in Augusta, Ga., Oct. 15, of typhoid fever.

—Mr. A. L. Green, President of the Coldwater, Marshall & Mackinac Company, while superintending the construction of a bridge over Battle Creek, near Marshall, Mich., Oct. 19, was struck on the head by a falling timber and dangerously if not fatally injured.

—Mr. A. H. Berry has resigned his position as General Freight Agent of the Maine Central Railroad.

—Mr. W. D. Bishop, President of the New York, New Haven & Hartford Company, celebrated his "silver wedding" at his residence in Bridgeport, Conn., Oct. 21. A large number of distinguished railroad men and others were present.

—Col. L. B. Smith, General Accountant of the Illinois Central road, died quite suddenly Oct. 19. He was considered one of the best railroad accountants in the country.

—Mr. Charles W. Hart has resigned his position as Superintendent of Telegraph of the St. Louis, Lawrence & Western road, to begin the study of medicine in Philadelphia.

—Mr. D. C. Axtell, Superintendent of the Cairo Division



of the St. Louis, Iron Mountain & Southern Railroad, was married recently to Miss May Cantrell, of Little Rock, Ark., and started east on a bridal tour.

It is said that Mr. A. N. Chrystie, late Vice-President and General Superintendent of the Ohio & Mississippi, will reside for the future at Havre, France, as agent for a steamship line.

The employees of the North Division of the Illinois Central have presented Mr. John C. Jacobs with a handsome carriage and a service of silver plate on the occasion of the 19th anniversary of his appointment as Superintendent of the division. The presentation took place at Amboy, Ill., Oct. 12.

### TRAFFIC AND EARNINGS.

#### Coal Movement.

The following coal tonnages are reported for the week ending Oct. 16:

	1875.	1874.	Inc. or Dec.	P. c.
Anthracite.....	546,384	512,112	Inc. 34,272	
Semi-bituminous, Broad Top and Clearfield.....	26,428			
Cumberland.....	49,587			
Bituminous, Barclay.....	9,211			
Western Pa.....	35,121			
West Va.....	4,886			
Coke, Western Pa.....	12,868			

The coal traffic of the Pennsylvania Railroad for the first week in October was:

	Tons.
Anthracite.....	20,213
Bituminous.....	62,402
Coke.....	12,868
Total.....	95,483

#### Northwestern Freight Rates.

The following new schedule of rates per 100 pounds from Chicago to the Missouri River has been adopted:

	1st class.	2d class.	3d class.	4th class.	Special.
To Council Bluffs.....	85 cts.	60 cts.	45 cts.	35 cts.	30 cts.
To Omaha.....	85 "	60 "	45 "	40 "	35 "

Car-load rates are as follows:

	Class A, per car.	Class B, per car.	Class C, per car.
To Council Bluffs.....	\$70	\$60	\$55
To Omaha.....	80	70	65

The other lines will probably adopt the same rates.

#### Flour and Grain Movement.

Receipts and shipments for the week ending with Oct. 16 are quoted as follows, flour in barrels and grain in bushels:

	1875.	1874.	Inc. or Dec.	P. c.
Flour:				
Lake ports' receipts.....	140,776	150,448	Dec. 9,672	6.4
" shipments.....	147,438	133,864	Inc. 13,574	10.1
Atlantic ports' receipts.....	240,389	273,021	Dec. 32,632	11.9
Wheat:				
Lake ports' receipts.....	2,789,092	2,318,242	Inc. 470,850	20.3
" shipments.....	2,297,987	1,910,905	Inc. 387,082	20.3
Atlantic ports' receipts.....	1,649,031	1,249,021	Inc. 400,010	32.0
Grain of All Kinds:				
Lake ports' receipts.....	4,936,513	4,096,901	Inc. 839,612	24.5
" shipments.....	3,998,955	3,590,822	Inc. 408,133	11.4
Atlantic ports' receipts.....	3,817,656	3,154,393	Inc. 663,263	21.0

Of the grain shipments from lake ports, 28 1/2 per cent. went by rail this year, against 11 1/2 per cent. in 1874, and 16 in 1873.

Chicago receipts and shipments for the week ending Oct. 23 were:

	1875.	1874.	Increase.	P. c.
Receipts.....	2,397,333	1,568,188	832,145	53.2
Shipments.....	1,855,549	1,218,484	637,065	52.3

#### Railroad Earnings.

Earnings for various periods have been reported by the following companies:

	1874-75.	1873-74.	Inc. or Dec.	P. c.
St. Paul & Sioux City.....	\$488,298			
Expenses.....	390,678			
Net earnings.....	\$97,620			
Earnings per mile.....	4,002			
Per cent. of expenses.....	80.01			
St. Louis & St. Paul.....	285,923			
Expenses.....	211,405			
Net earnings.....	\$54,518			
Earnings per mile.....	1,797			
Per cent. of expenses.....	79.50			
Eight months ending Aug. 31:				
Chicago, Burlington & 1875.				
Quincy.....	\$7,472,610	\$7,574,366	Dec. \$101,756	1.3
Six months ending Sept. 30:				
Georgia.....	\$437,688	\$474,181	Dec. \$36,493	7.7
Expenses.....	295,463	488,921	Dec. 193,358	39.6
Net, or deficit.....	\$142,225	\$14,640		
Earnings per mile.....	1,920	2,080	Dec. \$160	7.7
Per cent. of expenses.....	67.51	103.09	Dec. 35.58	34.5
Month of August:				
Louisville, Cin. & Lex.....	\$93,882			
Expenses.....	71,294			
Net earnings.....	\$22,588			
Per cent. of expenses.....	75.83			
Month of September:				
Georgia.....	\$103,480	\$94,255	Inc. \$9,225	9.8
Expenses.....	49,600	71,436	Dec. 22,836	32.0
Net earnings.....	\$54,880	\$22,819	Inc. \$32,061	140.5
Per cent. of expenses.....	46.96	75.79	Dec. 28.83	39.0
Ohio & Mississippi, Main Line.....	279,288	331,661	Dec. 52,373	15.7
Springfield Div.....	39,678	336,150	Inc. 7,897	2.3
Philadelphia & Erie.....	344,047	205,803	Dec. 10,906	5.3
Expenses.....	195,997			
Net earnings.....	\$148,150	\$129,347	Inc. \$18,803	14.5
Per cent. of expenses.....	56.94	61.52	Dec. 4.58	7.4
Three weeks ending Sept. 7:				
Atlantic & Gt. Western.....	\$315,941	\$295,727	Inc. \$20,214	6.8
First week in October:				
Cairo & St. Louis.....	\$7,811			
St. Louis, Iron Mt. & So. ....	\$7,432	82,906	Inc. 4,436	5.3
Week ending Oct. 1:				
Great Western.....	\$19,648	\$22,090	Dec. \$2,442	11.0
Week ending Oct. 2:				
Grand Trunk.....	\$43,100	\$45,200	Dec. \$2,100	4.6

For the nine months ending Sept. 30, the net earnings of the Philadelphia & Erie were: 1875, \$775,366; 1874, \$677,388; increase, \$97,978, or 14.5 per cent.

#### Freight Rates.

The freight rates east-bound have been raised on the basis of 40 cents per hundred for fourth-class from Chicago to New York, but grain remains at 30 cents. Lake rates have risen to 5 cents a bushel for wheat from Chicago to Buffalo, the close of navigation being at hand.

#### Suez Canal Traffic.

The last report of the company gives the following as the

number of vessels and amount of tonnage capacity passing through the tunnel since 1869:

	No. of vessels.	Tonnage.	Tolls, francs.
1870.....	486	654,915	5,159,327
1871.....	765	1,142,220	8,963,732
1872.....	1,082	1,744,481	16,407,591
1873.....	1,173	2,025,072	22,897,319
1874.....	1,264	2,423,072	24,859,383
First half of 1875.....	822	1,546,000	15,268,265

The traffic has certainly made great progress, the tonnage during the first half of 1875 being a third greater than that for the whole year 1871, and 64 per cent. of that for the whole of 1874.

### THE SCRAP HEAP.

#### Canton Wrought-Iron Bridge Company.

The Wrought-Iron Bridge Company of Canton, Ohio, have been awarded the contract for building the Green Lawn Avenue Bridge at Columbus, Ohio. The bridge is to be of wrought iron in every detail, and consists of two 154 ft. deck truss spans, a 123 ft. deck truss span and a 64 ft. through truss span, all built on the improved plate and channel truss plan patented by this company. The bridge has a 28 ft. roadway and two 5 ft. footways, and is proportioned for a rolling load of 100 lbs. per square foot, with safety factor of four. The same company has also received a contract for bridge at Tonawanda, N. Y., consisting of three 100 ft. deck truss spans, on their plate and channel truss plan, with all wrought details, having a 26 ft. roadway and two 17 ft. footways, and proportioned for a rolling load of 100 lbs. per square foot, with safety factor of five. It has recently completed a railroad bridge at East Saginaw, Mich., consisting of a 157 ft. fixed truss span and a 190 ft. swing truss span, all placed on concrete-filled wrought-iron piers placed on pile and timber foundations; and have now on its order-books over 12,000 ft. of iron bridge work designed for different points, amounting to over \$400,000.

#### Caution to Railroad Employes.

The Lake Shore & Michigan Southern Railway has recently issued a revised book of rules for the government of employes. This book has a preface signed by Mr. Charles Paine, the General Superintendent, the first part of which is as follows:

"All persons who enter the service of this company are hereby cautioned that they are taking up an employment which is *extra hazardous*, not only from its inherent dangers, but also from the acts and neglects of other employes, as well as from the use of trains, machinery and attachments, which may prove defective.

"No one will be received or continued in the service of this company, in any capacity, after the issue of this book, except on the understanding and agreement, HEREIN EXPRESSED, TO WHICH, BY TAKING EMPLOYMENT, HE ASSENTS: "First, That he will vigilantly look out for his own safety, and examine all cars or engines on which he is to ride, or to operate upon or with; and all tools and machinery with or about which he is to work, so as to know for himself, as well as this company or its managing officers or agents can know, their safety and suitability.

"Second, That he assumes all risk of injury to himself, which may result from the negligence or fault of any other employe of this company, whether his fellow-servants or otherwise, and whether his superior in authority or not.

"In all cases and under all circumstances, by day and by night, he is permitted and enjoined by the railway company to take sufficient time and to use the necessary means for making the examination hereby directed."

The first of the "rules and regulations" reads as follows:

"Every person in the service of this company is expected to be courteous and obliging toward the public and to his associates.

"The success of the company and of its representatives depends very much upon the good will of its patrons, and upon the harmony among its employes. All are requested, therefore, to cultivate friendly relations with the public and with each other.

"Every person in charge of employes is hereby directed promptly to dismiss from the service any who show an uncivil or quarrelsome disposition."

The first paragraph in the Book of Rules of the Pennsylvania Railroad is as follows:

"All employes are hereby informed that they are required by these rules and regulations, and by their own interest, as well as the interest of the company, to be polite and considerate in their intercourse with the patrons of the road. The reputation and prosperity of the road depend greatly upon the promptness with which its business is conducted, and the manner in which its patrons are treated by the employes."

#### A Railroad Court-Martial.

The Easton (Pa.) Express of recent date says: "Railroading has been reduced down to fine points, and it takes men of unbounded intelligence to live up to and carry out the exacting rules laid down by the railroad officials, and many are the employes who fail to carry them out. Monday morning a general 'court martial' was held at the dispatcher's office of the Lehigh Valley Railroad, H. Stanley Goodwin acting as judge advocate. About fifty of the employes were brought before the court on almost as many charges, some for causing accidents by carelessness, and others for neglecting to obey the rules and regulations of the company. This is the first time that a court of this kind has been held there, and considerable interest was manifested on both sides, the court sitting all the morning."

#### Trials of Salisbury Car Wheels.

The London (England) Daily News of Aug. 12 says: "A number of gentlemen interested in railways, engineers and others, met at the machine works of Mr. Horn, Hillbank Row, Westminster, recently, for the purpose of witnessing the results of tests applied to the cast iron chilled wheels manufactured by the Barnum Richardson Co., of Salisbury Iron Works, Connecticut. It was stated that these wheels have been in use for a long time, both in the United States and Canada, on almost all the railways of these countries, with the result that on some lines they are now used to the exclusion of all others. The experience of America, where the frost is so severe, would therefore seem to be in favor of these wheels; but as opinion existed in England that they were easily fractured, the manufacturers resolved to try the question by experiment, and hence the appeal to the tests applied last week. These were certainly of a severe kind, and it was not until the wheels had been struck 367 times with two hammers weighing 28 lbs. and 32 lbs. respectively that the iron partially gave way. It is claimed for the wheels that they are not only the most safe, but the most durable and economical."

#### The First Locomotive Built in New England.

The Boston Advertiser reproduces the following paragraph from one of its issues of July, 1834: "The first locomotive built in New England has been completed by Mr. Boulton, at the Mill Dam Foundry, near this city, for the Boston & Worcester Railroad. It is in daily use on that road, and proves to be a very excellent engine, probably equal to any that has been built anywhere. It is called the Yankee. It is built after the model of an English engine which was imported for the Lowell Railroad, and differs little in model, being larger in size, from the Meteor, which was built by Mr. Robert Stevenson, at New-

castle, and was imported for the Worcester Railroad. The Yankee and Meteor both work with remarkable ease, rapidly and power, make steam rapidly, and are perfectly manageable. The Yankee carries regularly a load of forty tons from the depot in Boston to Needham, a distance of 12 1/2 miles, on nearly four miles of which there is an ascent of thirty feet in a mile, in 47 to 50 minutes. Its full speed has not been tried, but it has run a mile in less than two minutes, and in traveling with a train of cars, we once observed that it passed over a mile in two minutes and three seconds. The workmanship appears to be of a superior kind, very exact, strong and well finished, every part working well on the first trial, with one or two trifling exceptions. The Yankee was placed on the road for the first trial on the 1st instant, and, with the exception of one day, has been in constant use ever since, and is now in perfect order. The success of this experiment proves that engines of the best kind may be built in this country, and from the number of railroads which are now building it is evident that it must become an important branch of manufacture."

#### Rolling Steel Scrap.

The Indianapolis Journal of Oct. 7 says: "A large number of iron workers of the city visited the Indianapolis Rolling Mill yesterday forenoon to witness a new process by which steel can be welded or restored. A mass of scrap steel was successfully welded and afterwards rolled into a fine steel rail weighing 65 pounds to the yard, 32 feet in length. Although the rolls were adapted only to iron rails, and the mill hands were not familiar with the process, enough was done to prove conclusively that the patent flux as applied will accomplish all that is claimed for it, viz.: To work up scrap and refuse steel into a merchantable article, and also put worn-out steel rails into a condition that they may be rerolled into rails that are as good as new. The test was highly satisfactory to all who witnessed it, and the managers of the rolling-mill are so favorably impressed with the manner the work was done that they will probably arrange their mill to go into the business of manufacturing steel rails on an extensive scale."

#### Iron Ties on Indian Railroads.

From a letter from Mr. Juland Danvers, Government Director of the Indian Railways, to Mr. Harry E. Sharpe, dated May 18, 1875, we are permitted to copy the following:

"Iron sleepers have been used where wood is scarce and dear. They have succeeded best where the soil is light and sandy, which is more suitable than heavy, hard soil for packing them with. The cast-iron bowl sleeper has answered very well in several places. The wrought-iron sleeper on the Oude & Rohilkund Railway has, thus far, appeared successful, but it has been down a comparatively short time. It is lighter, and the cost of carriage up country consequently becomes less, but cast-iron must be less liable to oxidation. On one line in India (the Madras) where wooden sleepers had been replaced by cast-iron bowl sleepers, the cost of maintenance was materially reduced, and no additional wear and tear was found to occur with the rolling stock."

#### Passes to Employes.

The Great Eastern Railway Company, of England, on application, grants to any fireman, (and probably to other classes of employes) a free pass for himself, wife and family, good for one passage to an from any point on its road, once in twelve months. A signal-man complains that while guards receive second-class passes, signal-men get only third-class.

#### Prices of Steel Rails in Belgium.

Contracts have been let in Belgium recently for Bessemer rails at 225 francs per English ton—about \$43.50 gold.

#### British Rail Exports.

The exports of railroad iron of all kinds are reported as follows by the Board of Trade for the month of September:

	1875.	1874.	Inc. or Dec.	P. c.
To United States.....	2,157	49	Inc. 2,115	6086
To all countries.....	55,494	61,799	Dec. 6,305	10

And for the nine months ending with September:

	1875.	1874.	Dec.	P. c.
To United States.....	6,780	11,148	4,368	39.2
To all countries.....	447,480	637,995	190,515	29.8

#### Religion for Railroad Men.

Mr. Lang Sheaff, of Cleveland, O., has begun a series of revival meetings especially for the benefit of railroad men. They are held on Sunday of each week at the Pennsylvania Railroad freight house in Jersey City, but have not thus far excited any great interest among the class of men for whose benefit they are intended. As a result, however, of the meetings already held, a railroad branch of the Young Men's Christian Association has been formed, and the company has given the use of rooms in a building belonging to it near the depot in Jersey City, supplying also fuel and light.

### RAILROAD LAW.

#### Railroads in the New Alabama Constitution.

The new constitution, which is soon to be submitted to the people of Alabama for their approval, contains the following sections:

"All railroads and canals shall be public highways, and all railroad and canal companies shall be common carriers. Any association or corporation organized for the purpose shall have the right to construct and operate a railroad between any points in this State, and to connect, at the rate line, with railroads of other States. Every railroad company shall have the right with its road to intersect, connect with, or cross any other railroad, and shall receive and transport, each, the others' freight, passengers, and cars, loaded or empty, without delay or discrimination.

"The General Assembly shall pass laws to correct abuses and prevent unjust discrimination and extortion in the rates of freight and passenger tariffs, on railroads, canals and rivers in this State.

"No railroad or other transportation company shall grant free passes, or sell tickets or passes at a discount, other than as sold to the public generally, to any member of the General Assembly, or to any person holding office under this State or the United States.

"No street passenger railway shall be constructed within the limits of any city or town, without the consent of its local authorities.

"No railroad, canal or other transportation company, in existence at the time of the ratification of this constitution, shall have the benefit of any future legislation by general or special laws, other than in execution of a trust created by law or by contract, except on the condition of complete acceptance of all the provisions of this Article.

"Any association or corporation organized for the purpose, or any individual, shall have the right to construct and maintain lines of telegraph within this State, and connect the same with other lines, and the General Assembly shall, by general law of uniform operation, provide reasonable regulations to give full effect to this section. No telegraph company shall consolidate with, or hold a controlling interest in the stock or bonds of any other telegraph company owning a competing line, or acquire, by purchase or otherwise, any other competing line of telegraph."





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## Editorial Announcements.

**Addresses.**—Business letters should be addressed and drafts made payable to THE RAILROAD GAZETTE. Communications for the attention of the Editors should be addressed EDITOR RAILROAD GAZETTE.

**Passes.**—Having been informed that an advertising solicitor has requested passes on account of the Railroad Gazette, we take this occasion to say that all persons connected with this paper are forbidden to ask for passes under any circumstances, and we will be thankful to have any act of the kind reported to this office.

**Advertisements.**—We wish it distinctly understood that we will entertain no proposition to publish anything in this journal for pay, EXCEPT IN THE ADVERTISING COLUMNS. We give in our editorial columns our own opinions, and those only, and in our news columns present only such matter as we consider interesting and important to our readers. Those who wish to recommend their inventions, machinery, supplies, financial schemes, etc., to our readers can do so fully in our advertising columns, but it is useless to ask us to recommend them editorially, either for money or in consideration of advertising patronage.

**Contributions.**—Subscribers and others will materially assist us in making our news accurate and complete if they will send us early information of events which take place under their observation, such as changes in railroad officers, organizations and changes of companies, the letting, progress and completion of contracts for new works or important improvements of old ones, experiments in the construction of roads and machinery and in their management, particulars as to the business of railroads, and suggestions as to its improvement. Discussions of subjects pertaining to ALL DEPARTMENTS of railroad business by men practically acquainted with them are especially desired. Officers will oblige us by forwarding early copies of notices of meetings, elections, appointments, and especially annual reports, some notice of all of which will be published.

## THE CENTENNIAL.

The impression which a stranger gets in Philadelphia at the present time is, that the whole city is a mere adjunct to the Centennial—that the latter is the real and abiding thing, and all the rest ephemeral and transitory; just as Saratoga and its people exist only because of the springs there. Everything in Philadelphia is named Centennial, from a cocktail to a locomotive; everybody talks Centennial, and the shop windows blossom with pictures of the buildings, and life at present seems hardly worth possession to the average Philadelphian were it not for the anticipation of the great anniversary exhibition of next year. There is also a sort of sad pathos with which the inhabitants of the city of Penn regard all who live without its favored precincts, and who therefore have no adequate appreciation of what the Centennial will be. This feeling, too, seems to be not unmingled with exultation at the fact that Philadelphians are thus the subjects of a special illumination, whereas outsiders are not. Ever since the Centennial was proposed, people in the rest of the country have smiled at the enthusiasm of Philadelphians, but have shown very little enthusiasm themselves. A great many of them, we are satisfied, would like to feel enthusiastic over the dash which is written thus, 1776—1876, but can't. To all such we recommend from experience a journey to Philadelphia during this pleasant Indian Summer weather. There are those who have done so, and are enthusiastic and feel patriotic. The buildings in Fairmount Park have brought back the flavor and reminiscences of Fourth of July celebrations of many years ago, and rekindled a glow of enthusiasm which is, we believe, quite wholesome for all American citizens.

To speak more soberly of what Philadelphians have done and are doing, it must be said that they have quietly gone to work and are carrying out their part of the work with a degree of energy and skill such as has never been shown in this country in any similar undertaking. They have not only organized this great project, but they have plunged deep down into their pockets and anchored the fulcrums of the levers with which they intend to move the world to the firm foundation of the wealth which years of patient industry and skill have laid so broadly and so firmly in this fair and well-to-do city. Her people have organized and are carrying out this great work so quietly, and the visitor finds so much

more accomplished than he expected, that he is inclined to believe that one of the deficiencies of Philadelphians is power of expression. If Boston had done what Philadelphia is doing, the event would have been celebrated in stately prose and rhythmic verse, and the achievements sounded from one end of the land to the other. If New York was accomplishing what its neighbors are, it would have loaded the fast mail trains with newspapers heralding its own praises until the speed of the trains would have been diminished by the weight they would have been obliged to carry. If Baltimore had devised what Philadelphia is carrying out, every loyal son living under the shadow of Washington Monument would have swallowed another dozen of fat oysters daily, and folded his hands complacently over his stomach. If Chicago was rearing buildings whose size could compare with that of the prairie on which she is built, every loyal inhabitant would bubble over with commendatory adjectives, and her newspapers would make the lives of St. Louisians quite undesirable. St. Louis with the Centennial would grow prophetic, and offer to contract for the removal of the buildings at Washington to the "most splendid geographical position of the West."

Philadelphia simply goes on with her work. Her machines are many of them more rhythmic than her poets; her newspapers are less eloquent than the facts which they chronicle; her people when they think a great thought seek relief in great deeds and not by the folding of hands; her phraseology has grown smooth by reason of eating much fresh butter and is without the picturesqueness which the imaginative fertility of the West adds to the narratives of the Chicagoans; and she was the capital of the country now so long ago that there is no need to achieve that honor after the lapse of a century, and so she is quietly doing a work whose magnitude none can realize until they see it.

Letters and circulars and pictures, describing the preparations for the coming exhibition, have doubtless come to the notice of most of our readers, but even with the most careful attention to these it is quite impossible for any one to form anything like an adequate idea of the extent of the preparations and the plans for this exhibition. It is quite strange how inadequate words alone are to convey any idea of the extent of any object, unless it is possible to recall something which the person for whom the description is intended has seen, with which the thing described can be compared. To tell any one that the main exhibition building for the Centennial is 1,880 feet long and 464 feet wide gives very little or no idea of its size; but as most persons are accustomed to measure distance by miles, to tell them that the building is more than a third of a mile long will give them some little idea of its size. The space covered by the roof is more than 20 acres in area. The Machinery Hall is a separate building, 1,402 feet long by 360 wide, and with its annex, which is 208x210 feet, covers an area of nearly 13 acres. The space between these two buildings is 542 feet, and their fronts being on the same line, the distance from the east end of the main building to the west end of the machinery hall is 3,824 feet, or nearly three-quarters of a mile. Besides these two buildings, there is the Art Gallery, Horticultural, Agricultural and Government Buildings, with the following dimensions:

Main Building	1,880 x 464 ft.	area	20.02 acres
Machinery	1,402 x 360 ft.	"	12.82 "
Art	365 x 210 ft.	"	1.5 "
Horticultural	393 x 193 ft.	"	1.5 "
Agricultural	820 x 540 ft.	"	10.15 "
Government		"	2.00 "
			47.99 "

Besides the buildings enumerated, there will be numerous smaller ones to be erected by foreign governments, associations, etc., which will doubtless increase the total area of the space roofed over to more than 50 acres, or equal to a fair-sized farm.

The design of the two main buildings is of what might be called the utilitarian order of architecture; that is, they are built to serve the purposes for which they are intended in the most effective manner which the present knowledge of the production of materials and of construction would permit. "The main building is composed of wrought-iron columns, which support wrought-iron trusses. The columns are composed of rolled channel bars with plates riveted to the flanges. The roof trusses are similar in form to those in general use for depots and warehouses, and consist of straight rafters with struts and tie-bars." The roof is divided into seven spans, the center one of 130 feet span. On each side of these are two "side avenues," the roofs of which are of 100 feet span. Outside of these are "central aisles" of 48 feet span, and outside of these "side aisles" of 24 feet span.

The construction of the Machinery Hall consists of solid wooden columns supporting roof trusses, constructed with straight wooden principals and wrought-iron ties and struts.

The Art Gallery is built of granite and "in the modern renaissance," with a dome of iron. This building is intended to be a permanent one. The Horticultural Building is of the Moresque style of architecture, ornamented with a great deal of color. The Agricultural Building

"consists of a long nave crossed by three transepts, both nave and transept being composed of Howe truss arches of a Gothic form."

We have given this brief description of these buildings not with the expectation that it is at all adequate to give an idea of what they are, but simply to call attention to the exhibition and, if possible, convey to those who have not visited them some conception of the extent and the magnitude of the Centennial celebration which our Philadelphia neighbors have been organizing.

The buildings, with the exception of the Agricultural Hall, are already very far advanced toward completion. The Machinery Building is all under roof, and we presume that by the time this reaches most of our readers the whole of the main building will also be equally far advanced. The Art Gallery and the Horticultural Building are also nearly under roof, and there seems every reason to believe that the buildings will be ready before they are needed.

The very discouraging fact exists, however, that, owing to the apathy which prevails on this subject among many of our people, there is danger that we may be beaten on our own field by foreigners; and in no department does this seem more probable than in that of railroad equipment. Railroad companies themselves have no end to serve in such an exhibition, other than a public one, and, as is well known, the bosoms of corporations do not often heave with patriotic or any other emotions. In other words, railroad companies, not being manufacturers of machinery or material for sale, have not the motive which those who make such articles to sell have, in exhibiting their productions, which in the latter case to a great extent is to advertise and make known what they make. Now there will very probably be a large exhibition of private manufacturers of and dealers in railroad material; yet we believe it is quite doubtful whether there will be a full exhibition which would represent the state of the art of railroading completely in this country at this time unless such an exhibition is organized by some commission, association or individuals who would feel an interest in making it a representative one. Impracticable inventors of all kinds of patented traps will doubtless swarm at the doors of the exhibition; but it is not wild schemes and undeveloped ideas that are most needed to represent the railroad interest. An exhibition to be representative should be under the direction of experts who would discriminate between what is worthy of exhibition and what is not. We believe that there is no department of the Exhibition which will attract the attention of foreigners more than that of the railroad, and, as we have said, there is none that promises to be more incomplete. Now, while railroad companies have no especial interest in this matter, we believe that the great majority of railroad officers could very easily be induced to send whatever would add to the interest of this department if the request were only made by men authorized to make it, and competent to discriminate between what is good and what is bad. We doubt very much whether it would occur to any railroad company to send a snow plow to the Exhibition; and yet it is quite certain that if one was sent it would be an object of very great interest to all foreign engineers, and doubtless, too, to most native ones. As the exhibition is held during the summer months, it would be no inconvenience for one or more of our New England roads to send specimens of such implements or machines.

At the risk of repeating what we have written before we will say that in permanent way it would be extremely interesting if the leading lines here could be induced to send specimens of the rails and rail fastenings used on their lines. Two short pieces of rails spiked down to cross-ties would represent the method of fastening rails perfectly. Frogs, switches, crossings and especially signals quite naturally suggest themselves. A complete exhibition of the latter would probably do more to bring about the much desired and desirable uniformity than anything else, as it would afford opportunity of making comparisons of one system with another. In rolling stock there is a very much larger field. An exhibition of all classes of freight and passenger cars as well as of locomotives would be extremely interesting, and although they would occupy much room, they might be exhibited outside of the buildings and need not be under cover, thus saving much room, of which we learn there is likely not to be enough, notwithstanding the enormous size of the buildings.

It is of course very much easier to suggest that a thing should be done than to devise the means of doing it effectively. The source from which the country ought naturally to expect such supervision of an exhibition as we have indicated is the American Society of Civil Engineers. Without proper organization the exhibition is likely to be one which will be a source of humiliation instead of pride to American engineers, and it is in the power of the society referred to, without any expenditure of money, but simply by intelligent supervision, to prevent so lamentable a failure and so beggarly an exhibition as this country made at Vienna. It is, however, quite uncertain whether this association would regard such efforts as consistent with "the policy of the Society," and we are afraid that



some of its members might regard an international exhibition, which is intended to spread knowledge as widely as possible, as "unprofessional."

The thing which seems to be needed is either an individual, a commission, or an association composed of experts in railroad matters, who will select and solicit the exhibition of such objects as will adequately represent the art of railroading at the present time, and exclude those which are not representative, but which are undeveloped or visionary.

In the system of classification adopted by the Centennial Commission, railroad equipment is classified under the general head of "Railway Plant, Rolling Stock, and Apparatus." This is subdivided and numbered as follows:

Class 570.—Locomotives, models, drawings, plans, etc.  
Class 571.—Carriages, wagons, trucks, cars, etc.  
Class 572.—Brakes, buffers, couplings, and snow plows.  
Class 573.—Wheels, tires, axles, bearings, springs, etc.  
Class 574.—Permanent ways, ties, chairs, switches, etc.  
Class 575.—Station arrangements, signals, water-crane, time-tables.

Class 576.—Miscellaneous locomotive attachments.

Class 577.—Street railways and cars.

Besides these there are several other classes under the head of "Machines and Tools" which apply to railroads.

If now these departments were placed under the charge of competent persons who would determine what articles would serve best to set forth the American system of railroad construction and operation, and would then invite railroad companies' officers and manufacturers to send them, at the same time discouraging the "tin-pan" class of mechanism and construction, we feel satisfied that the exhibition would be very much more complete and creditable to us than it is likely to be without such supervision.

#### Progress in Traffic, Rates and Expenses on New York Railroads.

In the *Railroad Gazette* of October 16 we presented an analysis of the New York Railroad Report for 1873-74 in such a way as to show with some minuteness the condition of railroad business that year, and a comparison of it with the business of the previous year. As there have been many changes in the extent of the New York railroad system since the war, and some in the methods of conducting traffic on it, we have thought it desirable to examine the records for several years, chiefly for the purpose of ascertaining the growth of traffic in comparison with the increase in railroad mileage, and the receipts and expenses per unit of traffic.

To ascertain the traffic—the extent to which, on an average, the railroads are used—we have divided the train-mileage and the numbers of passengers and tons of freight carried one mile by the number of miles of railroad on which this work was done, thus giving the traffic per mile of road. This we give in the table below, and with it the mileage, which, by the way, is the total of the companies reporting to the State, and much more than the mileage within the State, especially of late years:

	Miles of road.	Trains.	Passengers.	Tons of freight.
1867	3,653	5,751	179,703	326,497
1868	4,429	5,365	151,464	380,711
1869	6,191	5,624	147,414	428,715
1870	6,977	7,061	132,945	452,078
1871	7,853	7,237	130,926	476,933
1872	8,209	7,871	137,407	538,334
1873	8,552	7,900	129,603	525,842

Here we see that the train-mileage per mile of road increased less than 27 per cent. in the seven years from 1867 to 1874, that the passenger mileage decreased nearly 28 per cent., while the freight-mileage increased 61 per cent. That is, passenger traffic has not nearly kept up with the increase of railroads, and freight traffic has far surpassed it. On the average the New York railroad has a fourth less passenger traffic than in 1867. This of course does not mean that there has been no increase to passenger traffic: there has been some increase; but a large proportion of the new roads have obtained very little, and these bring down the average amount per mile of road. The train-mileage is not an accurate measure of traffic, as train capacities vary much, and have been changed considerably of late years on the more important roads by the introduction of more powerful locomotives. It does, however, measure pretty well the use made of the tracks. In 1867 (the years all end with September), there was an average of 7.9 trains each way daily; in 1874 the number was just 10. Evidently the railroads of the State are not, as a whole, by any means crowded. With an efficient signal system the entire circulation of trains, if evenly distributed on the roads, could be confined to one hour of the twenty-four. More interesting is the progress made in the economy of working these railroads.

The receipt, expense and profit per train-mile for the years mentioned have been:

	Receipt.	Expense.	Profit.
1867	\$2.36%	\$1.66%	\$0.70%
1868	2.28%	1.55%	0.73%
1869	1.97%	1.32%	0.65%
1870	1.64%	1.10%	0.54%
1871	1.63%	1.11%	0.52%
1872	1.61%	1.10%	0.51%
1873	1.57%	1.05%	0.52%
1874	1.57%	1.05%	0.52%

This shows decided progress, but not so much as has

#### RAILROAD EARNINGS IN SEPTEMBER.

Name of Road.	Mileage.					Earnings.					Earnings per Mile.	
	1875.	1874.	Inc.	Dec.	Per c.	1875.	1874.	Increase.	Decrease.	Per c.	1875.	1874.
Burlington, Cedar Rapids & Minnesota.	424	424				\$117,923	\$119,626		\$1,698	1.4	\$278	\$282
Central Pacific.	1,315	1,260	55		4.4	1,561,900	1,371,739	\$189,261		13.8	1,197	1,089
Cincinnati, Lafayette & Chicago.	75	75				39,103	40,105		1,002	2.5	521	535
Georgia.	228	228				105,480	94,255	9,225		9.8	454	413
Houston & Texas Central.	508	508				254,369	234,380	19,989		8.5	501	461
Illinois Central.	1,109	1,109				737,834	758,536		20,702	2.7	665	684
International & Great Northern.	458	458				88,501	105,945		17,444	16.5	193	231
Kansas Pacific.	761	761				318,111	302,318	15,793		5.2	418	397
Keokuk & Des Moines.	161	161				80,539	68,450	12,089		17.6	500	425
Lake Shore & Michigan Southern.	1,175	1,175				1,202,700	1,332,602		299,902	24.6	1,075	1,304
Missouri, Kansas & Texas.	786	786				299,995	334,496		34,501	10.3	362	426
Ohio & Mississippi.	615	393	222		56.5	318,966	331,661		12,695	3.8	519	544
Philadelphia & Erie.	288	288				344,047	336,150	7,897		2.3	1,195	1,167
St. Louis, Alton & Terre Haute—Belleville Line.	71	71				48,543	55,282		6,739	13.9	684	770
St. Louis, Iron Mountain & Southern.	685	685				342,800	292,216	50,584		17.3	500	427
St. Louis, Kansas City & Northern.	504	504				246,624	249,733		3,109	1.2	489	496
St. Louis & Southeastern.	349	349				58,676	116,812		58,136	25.4	254	340
Toledo, Peoria & Warsaw.	235	235				136,542	107,338	29,204		27.2	576	455
Union Pacific.	1,032	1,032				1,042,000	1,065,993		23,993	2.1	1,010	1,031
Totals.	10,781	10,504	277		2.6	\$7,431,758	\$7,517,642	\$85,884		1.1	\$689	\$716
Total increase or decrease.			277		2.6			\$85,884		1.1		

#### RAILROAD EARNINGS, NINE MONTHS ENDING SEPTEMBER 30.

Name of Road.	Mileage.					Earnings.					Earnings per mile.				
	1875.	1874.	In.	Dec.	Per c.	1875.	1874.	Increase.	Decrease.	P. c.	1875.	1874.	In.	Dec.	P. c.
Central Pacific.	1,309	1,260	49		3.4	\$12,400,183	\$10,305,109	\$2,174,984		21.1	\$9,579	\$8,179	\$1,399		17.1
Cincinnati, Lafayette & Chicago.	75	75				289,218	328,063		\$38,845	11.8	3,856	4,374			\$518
Illinois Central.	1,109	1,109				5,459,207	5,661,814		202,607	3.6	4,923	5,105			182
International & Great Northern.	458	421	37		8.8	821,097	823,183		2,086	0.3	1,793	1,965			102
Kansas Pacific.	761	761				2,356,223	2,405,183		48,960	2.0	3,096	3,161			65
Keokuk & Des Moines.	161	161				612,312	600,789	11,523		22.3	3,903	3,110	693		22.3
Missouri, Kansas & Texas.	786	786				2,024,843	2,299,037		274,194	11.9	2,576	2,925			349
St. Louis, Alton & Terre Haute, Belleville Line.	71	71				401,692	393,804	7,888		2.0	5,658	5,547	111		2.0
St. Louis, Iron Mt. & Southern.	685	684	1		0.1	2,488,694	2,199,204	289,490		13.2	3,639	3,215	418		13.0
St. Louis, Kansas City & North'n.	504	485	19		3.9	1,880,843	1,805,778	75,065		4.2	3,733	3,723	9		0.2
St. Louis & Southeastern.	349	349				708,699	921,305		212,606	23.1	2,031	2,640			609
Toledo, Peoria & Warsaw.	234	237	3		1.3	922,953	826,337	96,616		11.9	3,944	3,491	453		13.0
Union Pacific.	1,032	1,032				8,663,427	7,520,184	1,143,243		15.2	8,396	7,287	1,108		15.2
Totals.	7,528	7,431	97		1.3	\$30,109,301	\$25,980,880	\$3,898,809		8.7	\$5,195	\$4,843	\$352		7.3
Total increase.			97		1.3			\$3,119,511		8.7					

been effected; for, as we have said, while the expense per train-mile has been decreasing, the average of freight load has been increasing. From 1867 to 1874 there has been a decrease of 33½ per cent. in the receipt, 36 per cent. in the expense, and 27 per cent. in the profit per train-mile.

The true measure of traffic being in the mileage of passengers and tons of freight carried, the true measure of economy is in the expense of carrying per ton and per passenger per mile. For the several years, the receipt, expense and profit for these units of traffic have been, in cents:

	—Per passenger mile—			—Per ton mile—		
	Receipt.	Expense.	Profit.	Receipt.	Expense.	Profit.
1867	2.4650	1.7293	0.7357	2.5800	1.8160	0.7700
1868	2.3991	1.6580	0.7411	2.0857	1.4414	0.6443
1869	2.2675	1.5287	0.7388	1.7016	1.1471	0.5545
1870	2.4909	1.6705	0.8134	1.7005	1.1450	0.5555
1871	2.3801	1.6430	0.7371	1.6645	1.1490	0.5155
1872	2.3570	1.6004	0.7566	1.6000	1.0864	0.5136
1873	2.2890	1.5393	0.7508	1.4480	0.9730	0.4750

Here we have assumed that the proportion of expenses to receipts is the same for both passenger and freight traffic, which is not accurate; but if the expense of either is made too great in this way for any year, that of the other is reduced in proportion.

In passenger traffic the reductions are not great, which was not to be expected in view of the fact that it did not increase with the mileage. From 1874 there was a decrease of 7 per cent. in the receipt, of 11 per cent. in the expense, and an increase of 2½ per cent. in the profit per passenger mile.

The great change is in freight, in which there has been within the seven years a reduction of 44 per cent. in the receipt, 46 per cent. in the expense and 40 per cent. in the profit per ton per mile.

These reductions in freight charges and expenses are certainly remarkable. The greater part of them too, as appears, were made during the era of high prices, the year 1873, ending with September, being nearly coincident with the twelve months preceding the panic. As there was a decrease in the average amount of traffic, the decrease from 1873 to 1874 must have been chiefly due to the fall in prices of wages and supplies, and will probably be more apparent for the year recently closed, for which returns are soon to be made (though probably not published for many months.)

Probably there is no other important service in the community for which the price fell as much as 44 per cent. from 1867 to 1874, and those who complain of the unprogressiveness of railroads will do well to bear this fact in mind. With all their faults, the lack of skillful administration, of sufficient highly trained officers, of economical appliances, they have made astonishing progress in the economy of conducting transportation—a progress which, in spite of a decreasing traffic, has not yet ceased; and, the public should remember, the advantage of this economy has been wholly gained by the patrons and not by the owners of the railroads. The profit per ton per mile, which was 0.77 cent. in 1867, decreased gradually to 0.475 cent. in 1874. The carriers have been able to trans-

port freight at a cost less by 0.843 cent per ton per mile, but they have reduced the price by 1.038 cents. This is a fact which we commend to the attention of those who think our railroad charges oppressive and tyrannical.

Of course the companies have not intended to reduce their profits. They have been compelled to make reductions in charges which were unpleasant to them; but this too is a fact deserving notice, as showing the actual practical working of a system which has been said to make the carriers absolute dictators as to the amount of tolls they shall exact of the public.

The profit, doubtless, has been decreased too much, and if the companies can succeed in regulating more effectively the rates over which they are said to exercise despotic control, they will do well hereafter, while continuing to reduce the cost of transportation, by maintaining the rates and thus increasing their profits; or, if traffic increases considerably, as it probably will soon, by preventing such a reduction of rates as will take away all the profits from the greater traffic as well as from the lower cost of carrying it. The average New York railroad is unduly unprofitable. It has reduced its expenses largely, it is true, but it has reduced its charges still more, and, in spite of an increase in traffic, is left with smaller profits than formerly. The community certainly should not complain if the railroads get a part of the saving by new economies in working. This may result in some companies' making very large profits; but then others make very small ones, or none at all, as is the natural course in all competitive business.

#### Reorganization of the New Jersey Midland.

On the 21st inst. a meeting of New Jersey Midland bondholders was held in New York, at which it was voted to adopt what is known as the "Balestier" plan of reorganization, described in our news columns, by which, briefly, it may be said that after foreclosure a new first-mortgage is to be made for not more than \$1,000,000 to provide for necessary expenditures on the property, \$3,000,000 of bonds not bearing interest till 1879 be issued to the first-mortgage bondholders, income-bonds for the second-mortgage bonds and unpaid coupons, and a quantity of stock and scrip for other debts, stock, etc.

We believe that a reorganization on this basis is likely to lead to future bankruptcy, and that it will be unfortunate if the bondholders, who have yet to give their formal assent to this scheme, do not insist on a sounder basis of reorganization.

The interest in the road is more general than would be due to its comparative importance, which arises from the fact that its securities are largely held by small investors. Commenced, under the name of the New Jersey Western, as a short local road, it was taken up by parties connected with the New York & Oswego Midland and developed into the New Jersey section of that line. Its bonds were widely sold on the strength of its being a "home road," near by and sure to pay, and on the prestige that the greater Midland then possessed. It was to be leased to the New York company on terms that would render its securities absolutely safe and even the stock a paying investment. When the collapse of the lessee came, the bankruptcy of the New Jersey line necessarily followed, and it was



left to its own resources. Many of the bondholders consented to fund their coupons for a time, but the managers failed even to pay interest on these funded coupons, and the agreement is consequently void.

As many of the owners of the property are personally not familiar with it, some brief description of it may be acceptable. Leaving the Pennsylvania Railroad, whose depot in Jersey City it uses and on whose tracks its trains run from that place for 2½ miles, at Marion Junction, the road turns sharply to the northward, crosses the Erie and the Morris & Essex on bridges and runs down nearly to the grade of the adjoining meadows. It then runs parallel to the Northern Railroad some five miles, turns to the west, crossing an arm of the Hackensack at the Little Ferry and runs through Hackensack to Paterson, 20 miles from Jersey City. Here it skirts around the city, turns to the northward, crossing the Erie and the Passaic River again at Hawthorne, and begins to climb the east side of the Paterson trap range. At Wortendyke, 26 miles, it is 230 feet above tide and 2½ miles from the Erie at Hohokus. Here it turns northward and follows a branch of the Passaic, reaching an elevation of 340 feet at Wyckoff. Just beyond Campgaw, 29½ miles, it strikes the Ramapo, turns southwest and follows it down to Pompton, turns due west again, skirting the foot of the Ramapo Mountain, crosses the Montclair just where the Wanaque Valley debouches upon the Pompton Plains, then turns a little to the northwest and begins the ascent of the valley of the Pequannock. This valley here and there widens out into a little basin occupied by a mountain farm, but is for the most part a narrow and tortuous canon just wide enough for the railroad, the river and the country road. For most of the way the line here is in a side-hill cut with an occasional trestle and here and there a through cutting where the river takes a sharper bend than usual. In the 9½ miles from Pompton Junction to Newfoundland the road rises from 210 to 760 feet above tide, crosses the river eight times, and has hardly a tangent over 200 yards long. At Newfoundland the valley widens out and the road runs over a short stretch of nearly level track, crossing the head of the Longwood Valley at Oak Ridge, then follows the Pequannock through another narrow gorge to Stockholm, crosses the Snufftown meadows, where is a sink-hole that cost much money and time to fill, and reaches the summit, 51 miles from Jersey City and 990 feet above tide, having risen 780 feet in 16 miles. From the summit it runs down through two long rock cuttings and over a high intervening trestle and winds out into, or rather over, the Wallkill Valley, less than a mile from Franklin Furnace and 250 feet above it. Here it turns directly to the southwest, running down along the side of the mountain to a level of 530 feet at Ogdensburg, 56 miles, then turns sharp to the west and runs across the Wallkill Dyke. This is a remarkable natural embankment, composed of sand and boulders varying from several tons to a pebble, called by geologists the terminal moraine of an ancient glacier, and is full 100 feet high, a mile long and from 100 to 200 feet wide at top. At the west end the river had cut a passage through, which the railroad has filled with an artificial embankment, leaving a large culvert through which pass the Wallkill River and the country road. On the west side there is a siding running to the Sterling Hill zinc mines, and the main line turns sharp northward and runs along the side of the valley, nearly reaching its general level at Franklin Furnace, where it meets the Sussex Railroad. Thence it keeps on nearly due north through the center of the valley, parting near Hamburg with the Warwick Extension of the Sussex, which runs on the Midland track from Franklin. North of Hamburg the Pochuck Mountain cuts the valley sharply in two; the Midland follows the western branch through Deckertown to Unionville, where it crosses the New York State line and runs north by east to Middletown, 14 miles from Unionville and 88 from Jersey City, over the Middletown, Unionville & Water Gap road, which it leases.

The road has few branches or feeders and must necessarily depend for traffic mainly upon the business originating upon its own line. Near Charlotteburg the Green Pond Railroad brings to it the freight of some iron mines, which, when the iron business revives somewhat, will doubtless be considerable. At Franklin Furnace there is some interchange of traffic—mainly of coal and ore—with the Sussex Railroad. The through freight from the New York & Oswego Midland, not very great in amount at best, is under present arrangements largely diverted to the Erie at Middletown. Indeed the New Jersey Midland is not fitted for through business; the heavy grade from Ogdensburg to the summit going east, and the high grades and sharp curves through the Pequannock valley going westward effectively prevent any competition with the Erie on business to Middletown and beyond except at a ruinous loss. As to the local business, the upper end of the road, from Middletown to Ogdensburg, 22 miles, runs through an exceedingly fertile farming country, the upper portion of the Wallkill Valley being indeed known as the finest farming country of New Jersey. The Valley lands are generally all in cultivation, the farmers thrifty and well-to-do, but the main business of the country is in dairy products, which, while furnishing a class of freight paying high rates, do not supply nearly as great a bulk of traffic as grain. At Ogdensburg the Sterling Hill zinc mines furnish a considerable business, but from there to Pompton, 22 miles, the country is rough and poor and gives very little to the road except at Newfoundland, which is a sort of a distributing point for the hill country of upper Morris and Passaic counties. From Pompton down to Wortendyke the business is fair, but below that point we reach the region of suburban travel and of competition with other roads. There are no manufacturing establishments of much size on the line, the location of the line outside of Paterson and its lack of rail connection with the large manufacturing of that city cutting it off from their traffic and aside from the milk and other farm business, the growth of which is slow, the increase of traffic must come from suburban travel on the eastern end and from the opening of new and development of the present iron mines on the mountain section.

The iron trade has, here as everywhere, received a serious check, but there is little doubt that it will bring, after a time together with the carriage of coal and supplies to the mines and furnaces, a considerable and profitable business. The domestic consumption of coal along the line is continually increasing as the woodlands grow less, and it is quite an item of freight.

The suburban business is necessarily of very slow growth and at best an expensive traffic to work, giving little net profit unless there is a great deal of it, which will not be the case on the Midland for years to come. The reports heretofore made by the Receiver indicate gross earnings of between \$6,000 and \$7,000 per mile per year. Just now it requires care and the strictest economy to make them balance the expenses; but with better conditions, such improvements as can readily be made, and with proper and sufficient equipment, owned by the company, probably the road could be worked for 75 per cent. of the receipts, certainly not for less. This would leave net earnings of about \$125,000, out of which some \$20,000 must be paid for the rental of the Unionville road. It is very doubtful whether these net earnings can be increased by any great amount for years to come. No considerable improvement in grades or curves can be made without an expense entirely too great to be undertaken with any hope of a return. When the road was built a line was surveyed from the Summit in the Wallkill Mountain which ran north along the east side of the valley, then turned west and by way of Rudeville and around the foot of the Pochuck Mountain into Deckertown. This line avoided the long detour by Ogdensburg, but it was probably wise policy to reject it, as its adoption would have lost the road the Sussex connection at Franklin Furnace and the very considerable business of the zinc mines at Sterling Hill.

The road, though in much better condition than might have been expected, requires considerable expenditure in the way of widening cuts, filling trestles, ditching, and trimming water-worn slopes. The iron, originally poor, has been pretty well pounded to pieces by the heavy engines used, and much of it needs renewing at once; all of it will before long. The bridges are in fair condition, though some of them are pretty light for their work and must be rebuilt before long. Much of the equipment is hired only, and that owned is not in the best condition possible, though much has been done considering the limited facilities possessed.

When the road was abandoned by the New York Midland the officers took it, under many disadvantages, it is true, and worked along in a shiftless, hand-to-mouth fashion, taking the daily receipts to pay creditors who would not be put off with promises, letting the pay-rolls run up, supply bills accumulate and the road go to ruin as fast as it could. The receiver has reversed all this and has really done wonderfully well under the circumstances, but his hands are tied and he is naturally unwilling to do more than can be done with the earnings of the road itself. Moreover his administration is necessarily temporary in its nature, and the Chancery Court of New Jersey is traditionally averse to the long continuance of a receivership or to the increase of receivers' debts. The completion of the foreclosure cannot long be delayed, and it is to be hoped that some better agreement will soon be reached by the bondholders.

Three propositions were before them; one for a nominal sale to the South Mountain & Boston Company by the transfer of securities, the advantages of which it was hard to see; that company, while solvent so far as is known, is yet engaged in the construction of its own road, that is, the results of its own enterprise are still doubtful, and it is yet more doubtful if it can carry the burden of debt which will come to it with the Midland. The two others differed in detail, but were alike in their general features of replacing the present securities with new bonds and preferred stock and promising to resume payment of interest in two or three years. Both provide for a load of debt which the road can never carry, and their inevitable result must be a new default with a new foreclosure and its attendant expense and demoralization. In round figures and disregarding the unpaid coupons, the present debt consists of \$3,000,000 first, \$1,500,000 second, \$250,000 consolidated or third-mortgage bonds and \$350,000 floating debt, a total of \$5,100,000, or \$72,000 per mile on the 71 miles owned. As said above, it is extremely doubtful whether, for years to come, the road can earn more, allowing for necessary renewals and improvements, than \$800 to \$1,000 net per mile. The only hope of a stable organization is for bondholders to accept the situation and submit to a ruthless scaling down of the amounts of their securities and the establishment of a capital account consisting of not more than say \$20,000 stock and \$10,000 or \$12,000 funded debt per mile. On this basis there is a probability that it may become a corporation with an established credit, may pay its way, and, in time, reasonable dividends to the stockholders. The question of holding the Weehawken property for a future terminus must be left to the judgment of the owners; there is a heavy mortgage on the property, and it is extremely doubtful whether the business or prospects of the road will warrant its improvement and the building of a road through Bergen Hill to reach it for many years to come. The main thing, however, is to reorganize the company on a stable basis, and this and other matters may safely be left for after consideration.

#### Turning Chilled Wheels.

The discussion at the last monthly meeting of the Master Car-Builders' Association, a report of which will be found on another page, is well worth the attention of railroad managers. After resting for thirty or forty years under the impression that it was impossible to turn cast-iron wheels, Mr. Hodgman and Mr. Lobdell, of Wilmington, Del., have quietly gone to work and done it in the same way as the company of which the latter gentleman is an officer, has been turning chilled rolls for years past. The result is that a pair of wheels which had been rendered useless by a slight but very common defect has, at a

comparatively small expense, been made fit to use again, and is now running under an engine, with the promise of doing as good or better service than new wheels would. The importance of this new departure may be appreciated when we remember that the number of old wheels rendered unserviceable from defects no greater than that described by Mr. Lobdell may be counted by tens of thousands. In the ordinary course of events such wheels are broken up and remelted, to make new wheels of inferior quality. It certainly would be extraordinary if it were found after we have been breaking up millions of such wheels, that we have been destroying what has a value only to be counted in millions of dollars.

The manufacturers of machine tools will, of course, not be slow to anticipate the demand for lathes to do this work, if the present and future experiments prove what there is now good reason to expect may be accomplished by turning defective wheels. Should these expectations be realized, we can anticipate a rise in the value of old wheels greater than any which has ever occurred in stocks on Wall street. We shall watch these experiments, as doubtless many of our readers will, with a great deal of interest, and we think there is good ground for anticipating a very important economy in this costly branch of railroad expenses, and also that some enterprising parties may get up a corner in old wheels, which, it may now be said, both literally and figuratively, are a very heavy article in the market.

#### Record of New Railroad Construction.

This number of the *Railroad Gazette* has information of the laying of track on new railroads as follows:

*New York & Canada*.—Extended from Westport, N. Y., north to Whalonsburg, 6 miles, completing the road.

*Green Lick*.—Completed from Scottdale, Pa., to Mt. Vernon Ore Bank, 3 miles. It is of 3-foot gauge.

*Los Angeles & Independence*.—Extended eastward 8 miles to Los Angeles, Cal., 15 miles from the western terminus at Santa Monica.

This is a total of 7 miles of new railroad, making 920 miles completed in the United States in 1875, against 1,242 miles reported for the same period in 1874, 2,955 in 1873, and 5,312 in 1872.

THE FIRST CHINA RAILROAD, of which we made mention last week, is, we are glad to learn by a correspondent whose letter we publish on another page, to be partly an American and not wholly an English enterprise. In view of the extent of the field which may be opened, we may congratulate ourselves on this. It must be borne in mind that England has a great advantage in any enterprise of this kind in a new field, for it supplies the cheapest iron and the cheapest money. Those who furnish the money are apt to dictate the furnishing of supplies and the construction of the works. We doubtless will not be able to furnish any considerable proportion of the capital for Chinese railroads, and probably, for some time at least, no rails in competition with Europe. But a large part of the machinery, the bridges, the rolling stock and the men we ought to be able to supply to the advantage of both parties. The Chinese are an economical people, and we excel the world in building cheap, efficient railroads. However, one swallow does not make summer, and the field is not yet open, though the thin edge of the wedge seems to have entered.

THE MASTER MECHANICS' ASSOCIATION REPORT of the eighth annual convention is just issued, making a neat and very valuable volume of 220 pages. The Association has decided to offer these volumes for sale hereafter, and we suggest that the large number of railroad officers not belonging to the Association who wish to have the book would do well to pay for it, even when they can get one for nothing, especially if their company does not pay the dues and expenses of its master mechanics who belong to the Association. The book is now paid for by the contributions of the members of the Association, and we suggest that there is a large number of railroad officers of high grade who ought to feel a little delicate about accepting a small contribution from their master mechanics.

SEPTEMBER EARNINGS are reported by nineteen companies, with about one-seventh of the mileage of the country. Eight of them show an increase over 1874, and the aggregate decrease is but 1.1 per cent.; though, as there is some increase of mileage, it is nearly 4 per cent. in earnings per mile. The comparison, however, is with a very unfavorable year, and it is not encouraging that the roads have done not much worse than last year.

For the nine months ending with September only thirteen roads report, with a little more than a tenth of the mileage of the country. These show an increase of 8.7 per cent. in total earnings and of 7.3 per cent. in earnings per mile.

THE GREATEST RAILROAD CUSTOMER, PERHAPS, is the great brewing house of Bass & Co., of Burton, whose ale is drunk the world over. During the year ending with June last this firm paid three railroad companies a total of £189,148 19s. 3d. for carrying freight, equivalent to \$1,071,850 in our currency, of which \$967,178 went to the Midland Railway Company.

THE ENGINEERING NEWS, of Chicago, a monthly journal which we have noticed heretofore, now publishes all the papers of the Civil Engineers' Club of the Northwest as they appear, under an arrangement with the club similar to that under which formerly most of their papers were published in the *Railroad Gazette*.

MEMBERS OF THE MASTER MECHANICS' ASSOCIATION are respectfully reminded that the Association needs its income to pay its expenses, and that many of them have neglected to pay their back dues. The annual report is now printed, and the bills for the work ought to be paid.

PASSENGER RATES between the East and the West by the recent advance have been restored to the standard existing for



several years previous to the late contest—\$22 between New York and Chicago, and \$27 between New York and St. Louis.

## General Railroad News.

### THE SCRAP HEAP.

#### Runs and Speeds of English Express Trains.

A correspondent of the *English Mechanic* has compiled the following table of the length of run and speed of English trains that run more than 60 miles without stopping:

Road.	Miles.	H. M.
Carlisle to Preston.....L. & N. W.....	89	2 18
York to Newcastle.....N. E.....	87	1 45
Holyhead to Chester.....L. & N. W.....	85	2 5
Grantham to York.....G. N.....	83	1 45
London to Rugby.....L. & N. W.....	82½	1 51
London to Dover.....S. E.....	78	1 41
London to Swindon.....S. W.....	77½	1 27
New Cross to Canterbury.....S. E.....	77	1 39
London to Peterborough.....G. N.....	75½	1 30
Rugby to Crewe.....L. & N. W.....	75½	1 42
Carlisle to Carlisle.....Caledonian.....	74½	1 39
Newcastle to Berwick.....N. E.....	66½	1 25
Oxford to London.....G. W.....	63½	1 25
Kentish Town to Wellingboro.....Midland.....	62	1 25
Wigton to Laton.....".....	61½	1 31

The following gives the speed in order:

Road.	Miles per hour.
London to Swindon.....	53½
London to Peterborough.....	50½
York to Newcastle.....	49½
Grantham to York.....	47½
Newcastle to Berwick.....	47
New Cross to Canterbury.....	46½
Carlisle to Carlisle.....	45½
Oxford to London.....	44½
London to Dover.....	44½
Rugby to Crewe.....	44
London to Rugby.....	43½
Kentish Town to Wellingboro.....	43½
Holyhead to Chester.....	40½
Wigton to Laton.....	40½
Carlisle to Preston.....	39½

The London & Northwestern alone uses the "jerkwater" to take water without stopping. The Great Western has a train running from London to Paddington, 191 miles, in 4½ hours, on the 7 ft. gauge. The Great Northern's Edinburgh express runs on the standard gauge from London to York, 188½ miles, in 4½ hours.

#### Cost of Freight Cars in Belgium.

At a recent letting of a contract for furnishing covered four-wheeled freight cars, to carry 22,000 lbs., without brake, bids ranged from \$413 to \$500, gold, each.

#### Railroad Manufactures.

The Standard Steel Works, at Lewistown, Pa., is a comparatively new but flourishing concern. The leading branch of manufacture is crucible cast-steel tires, but the company has also facilities for supplying crucible steel axles, forgings, castings, etc., etc. Over 8,000 tires have been supplied from these works under their present management, since January, 1873. The office of the company is at No. 218 South Fourth street, Philadelphia.

The Indianapolis *Journal* says: "The amount of work done at the Indianapolis Rolling Mill in the nine months ending Oct. 1 makes an exhibit which will equal, if it does not exceed, any rolling mill in the country of its capacity. Double turns have been run 171 days, turning out 14,340 tons of new rails. The heaviest contracts were given by the Cincinnati, Hamilton & Indianapolis, the Indianapolis, Bloomington & Western, the Vandalia and the Jeffersonville, Madison & Indianapolis roads."

The firm of Rodgers & Burchfield, prominent iron manufacturers of Pittsburgh, has suspended. They have been operating two mills, one at Leechburg and another at Apollo, Pa. Their assets and liabilities are not known.

Marchand & Morgan, of Alliance, O., recently shipped a 500-pound double-stand hammer to Lewis, Oliver & Phillips, of Pittsburgh, and a 1,000-pound hammer to Husey, Wells & Co., of Pittsburgh. They are building a two-ton hammer for the Globe Rolling Mill Company of Cincinnati.

The Baldwin Locomotive Works in Philadelphia have recently turned out three switching engines for the Peoria & Springfield road.

The Jackson & Sharp Company, of Wilmington, Del., lately shipped a passenger coach to the Peoria & Springfield road.

The Brooks Locomotive Works at Dunkirk, N. Y., are building some new engines for the Erie.

The Harrisburg (Pa.) Car Works resumed work Oct. 18. The Paterson Press mentions a report that the Grant Locomotive Works have secured a contract for 16 engines for a Canada road.

The Detroit Bridge & Iron Works have greatly enlarged their buildings since the fire which destroyed the western and southern wings. The new buildings are more substantial than those destroyed.

The Watson Manufacturing Company at Paterson have just completed an iron bridge of 125 feet span for the Keokuk and Des Moines road.

There is talk of establishing a new locomotive shop at Mansfield, Mass.

### OLD AND NEW ROADS.

#### Utica, Ithaca & Elmira.

This company has made an agreement by which a third rail is to be laid on the present track of the Delaware, Lackawanna & Western road, between Cortland and Syracuse, and it will lay track to that company for the running of its trains over its rails. Trains will run through between Elmira and Syracuse without change, as soon as the connection is complete between Spencer and Ithaca. It is also said that the connection between Smith's Valley and De Ruyter, a gap of 18 or 20 miles, will be soon constructed, so as to finish the through line to Utica.

#### St. Louis & Southeastern.

The Auditor, Mr. John P. Hains, reports the actual earnings of the road for the month of September as follows:

St. Louis Division.....	\$54,305 60
Kentucky Division.....	23,712 30
Tennessee Division.....	10,658 44
Total (\$254.00 per mile).....	\$88,676 34

As compared with the earnings for September, 1874, there is a decrease in the total of \$90,135.22, or 25.4 per cent.

#### Montclair.

At the meeting held in Newark, Oct. 25, the purchasing bondholders completed the organization of the new company. It was resolved to call it the Montclair & Greenwood Lake Railroad Company.

#### St. Paul & Pacific.

Later advices state that the meeting Oct. 11 adopted the committee's report, there being represent of the 1,700 certificates of the \$3,000,000 loan only 516, and of the 3,600 certificates of the 1869 loan only 1,424. The committee asked for time to get assents from other certificate-holders by letter and otherwise. Dr. de Klerk, who opposed this arrangement,

writes that it will be difficult to carry through the agreement, that the original bonds of the \$3,000,000 are at 32 and the committee certificates only 16, and that 90 per cent. of the bonds must assent within a year to make the arrangement effective. He reports that the committee are supposed to intend to make Mr. John Carp, who was their agent in making the arrangement with the company, a director, and to remove all the present directors, especially Mr. F. R. Delano, who is charged with having wood and elevator contracts disadvantageous to the company. The 1869 loan fell from 12 to 10½ the day after the meeting, and the second section loan was unsalable at 16½.

#### New York & Canada.

The gap of six miles, from Westport, N. Y., to Whalonsburg, which separated the two ends of the track, has been closed, and the last rail was laid Oct. 20. The road will soon be opened for business. It runs from Whitehall, N. Y., northward, following pretty closely the west shore of Lake Champlain, to Plattsburg, and is about 90 miles long. It has been built and will be leased and worked by the Delaware and Hudson Canal Company.

#### Passenger Conductors' Life Insurance Association.

The eighth annual convention began its sessions at the G and Central Hotel in New York, Oct. 27, about 125 delegates being present. The annual address was delivered by Mark M. Pomeroy.

At the conclusion of his discourse, Mr. Pomeroy, on behalf of the managers of Darling's Opera House, tendered the delegates an invitation to attend Thursday evening, which was accepted. The quartette club sang another glee, and President Seymour delivered his address, dwelling on the growth and strength of the association, and predicting for it a bright future.

An invitation was also extended to visit Booth's Theater, and another from Col. E. E. Ricker, of the New Jersey Central, inviting them on an excursion to Mauch Chunk Thursday, Oct. 28, where they will participate in a ball in the evening, returning to the city on Saturday night. Messrs. George Harrison, Alexander Allen and J. C. Shields were appointed a committee to examine credentials.

The report of the Executive Committee states that during the past year of the Association the claims paid for twenty deaths amounted to \$26,643. The receipts for the year ending August 31 are \$13,435.10, and expenditures \$13,178.10, leaving a balance of \$257. The present number of members is 1,354. The total amount of benefits paid since the formation of the organization is \$731,750.

#### Auction Sales of Railroad Securities.

In Charleston, S. C., Oct. 12, at auction South Carolina Railroad open bonds sold for 55½; Savannah & Charleston second mortgage 1 cent on the dollar.

In Philadelphia, Oct. 20, Allegheny Valley 7.3 per cent. bonds brought 93½; Camden & Atlantic common stock, 51½; Shamokin Valley & Pottsville stock, \$25 per share; Catawissa stock, 17½.

In New York, Oct. 23, Dayton & Michigan first-mortgage bonds brought 88; Coney Island & Brooklyn first mortgage, 75½; second mortgage, 61; Paterson & Hudson River stock, 100½; United New Jersey Railroad & Canal stock, 136.

#### St. Paul & Sioux City.

The following figures are from the reports made by the St. Paul & Sioux City and the Sioux City & St. Paul companies to the Railroad Commissioner of Minnesota for the year ending June 30, 1875:

	St. Paul & Sioux City.	Sioux City & St. Paul.
Capital stock.....	\$2,400,000	\$2,800,000
Funded debt.....	2,028,400	2,596,440
Floating debt.....	341,295	.....
Total stock and debt.....	\$4,769,695	\$5,396,440
Earnings from freight.....	336,409	169,550
" " passengers.....	129,239	58,109
" " expre s, mail, etc.....	25,650	38,264
Gross earnings.....	\$491,298	\$265,923
Working expenses.....	390,678	211,405
Net earnings.....	\$97,620	\$54,518
Per cent. of expenses.....	80 01	79 50
Taxes.....	\$17,352	\$10,791
Insurance.....	5,567	840
Interest on funded debt.....	171,671	175,860
" floating ".....	33,626	90
Total.....	\$228,216	\$187,081
Deficit, or net loss.....	\$130,596	\$132,563
Profits on freight trains.....	92,502	37,928
Losses on passenger trains.....	1,920	7,737

During the year 3,550 trains were run between St. Paul and Sioux City, of which 1,692 were passenger and 1,858 freight trains. The number of passengers carried was 83,946; tons of freight, 216,222. The average receipt per passenger per mile was 4.69 cents, the cost 5 cents.

#### Toledo, Wabash & Western.

The offices of the Superintendent of the Eastern Division are to be removed from Lafayette, Ind., to Fort Wayne.

#### The New Agreement.

The results of the new agreement, said to have been made at the recent conference of managers, are apparent in the general increase of through passenger fares and freight rates between New York, Chicago and other Western points. There is talk of another increase in freight rates, but nothing is definitely known.

#### Wisconsin Central.

The contractors for the branch extension from Stevens Point to Portage have 100 men and 20 teams at work, besides a party of bridge-builders. This force is to be gradually increased. The first rail has been laid at Stevens Point.

#### Louisville, Paducah & Southwestern.

Mr. B. Du Pont, Receiver, reports to the Court his cash receipts and payments as follows for September:

Balance on hand Sept. 1.....	\$20,410 18
Receipts from agents.....	\$34,847 60
" " conductors.....	962 55
" " sundry individuals and companies.....	2,181 34
Total.....	\$57,991 49
Payments on audited vouchers and August pay-rolls.....	\$68,401 67
Balance on hand Oct. 1.....	\$15,576 54

The payments for the month were in excess of the receipts by \$4,433.64.

#### Indianapolis & Springfield.

Work was formally begun at Rockville, Ind., Oct. 19, the first dirt being thrown up by President Lee. Mr. Hill, one of the contractors, has a force at work there.

#### Vermont & Canada.

At the annual meeting in Bellows Falls, Vt., last week the President gave a history of the troubles of the Central Vermont for the past year. The sale of the road to the Central Vermont had not been completed, and it was not wise to take any further steps while the affairs of that company were in their present condition. As to the policy of the sale, there was an apparently irreconcilable difference in the board, and the President could not recommend any active policy. The only course was to wait and watch, and it must depend entirely upon the result

of the pending Central Vermont suits what course should be taken. The proposed consolidation of all the lines embraced in the Vermont Central trust under the Central Vermont charter, had completely failed. If the trust was to continue he believed that it was best to cancel the Rutland lease as soon as possible.

Some discussion on the dissensions in the board followed. Two tickets for directors were nominated, one by President Nichols, the other by Mr. Brooks, who was President two years ago. The Nichols ticket was elected.

#### Winona & Southwestern.

Surveys of the line from Winona, Minn., to the Iowa line by way of Houston and the Money Creek Valley are being made by a party in charge of Mr. F. W. Kimball, formerly Assistant Chief Engineer of the Winona & St. Peter.

#### Augusta & Lewiston.

The line of this road as surveyed runs from Lewiston, Me., east by north through Webster, Wales, Litchfield, Monmouth, West Gardiner, Farmingdale and Hallowell to Augusta, and is about 30 miles long. Bridges 60 feet long over the Sebasticus and 100 feet long over the Cobscookscottee River will be required, besides a number of smaller ones. There will be some heavy work on the grading. The road will run about half way between the two lines of the Maine Central.

#### Maine Central.

This company is building at Waterville, Me., a round-house with stalls for 48 engines; its diameter will be 388 feet. One-fourth of the circle, twelve stalls, will be finished in December. It will have a 50-feet wrought-iron turn-table from the works of the Kellogg Bridge Company. The company also contemplates building large blacksmith and machine shops at Waterville this winter.

#### Rutland.

The Vermont Chancery Court has adjourned to Nov. 16 the hearing on the application of the Rutland company for an order to vacate the lease of the road to the Central Vermont, and to restore it to the company. The hearing on the cross-bills filed by other parties in the case was adjourned to the same time.

#### Vermont Central.

The hearing of arguments on the accounts of the old trustees was resumed last week before the special masters in the case, at St. Albans, Vt. Counsel on both sides were heard and the case was continued until this week, when more arguments will be made.

#### Meetings.

The following companies will hold their annual meetings at the times and places given:

New Jersey Southern, at the office in Long Branch, N. J., Nov. 17, at 12 noon.

Baltimore & Ohio, at the office in Camden Station, Baltimore, Nov. 15, at 10 a. m. Transfer books will close Nov. 6 and reopen Nov. 16.

#### Rome, Watertown & Ogdensburg.

At a meeting of the directors of this company and also of those of the Syracuse & Northern Railroad Company, held Oct. 19, an agreement of consolidation of the two companies was effected under the name of the Rome, Watertown & Ogdensburg Railroad Company, to continue under the management of its present officers, as follows: Marcellus Massey, President; Talbot H. Camp, Vice-President; J. A. Lawyer, Secretary and Treasurer.

This increases the mileage of the Rome, Watertown & Ogdensburg road by the 45 miles of the Syracuse & Northern from Sandy Creek to Syracuse, and gives it a second southern terminus at Syracuse besides the former one at Rome.

#### Cairo & Vincennes.

The first transfer of cars from this road to the St. Louis, Iron Mountain & Southern road over the new incline and transfer ferry at Cairo was made Oct. 21.

#### Wallkill Valley.

This road was sold at auction Oct. 21 under foreclosure of the second mortgage and was bought in for account of the bondholders by the trustees under that mortgage, the price paid being \$50,000. The sale was, of course, made subject to the first mortgage of \$700,000. The road is 33 miles long, from Montgomery, N. Y., north by east to Kingston, and is worked under agreement by the Erie.

#### Manhattan Railway Company.

This is the name adopted by the New York Rapid Transit Commissioners for the new corporation to be formed to build a rapid transit line for the city. Articles of incorporation have been prepared and books for subscription to the stock were to be opened Oct. 29. The capital stock is fixed at \$2,000,000, with the right to increase it hereafter according to the provisions of the law. The whole stock cannot be taken by any number less than 25 persons, and each subscriber must pay 5 per cent. of the amount of his subscription at the time of making it.

It is reported that the Third Avenue Railroad Company has made arrangements to secure a controlling interest.

#### The Fast Mail Trains.

President Chapin, of the Boston & Albany, has notified the Post-Office Department that after Dec. 1 the fast train from Boston which now connects with the fast mail west at Albany will be withdrawn for the winter. The reason given is that the train does not now pay, and the company is not willing to run it through the winter at a loss.

A fast mail train is to be run over the Baltimore & Ohio from Baltimore to Chicago. It will leave Baltimore at 6:20 a. m., and Washington at 7:10 a. m., arriving in Chicago at 9 a. m. of the following day, the run from Washington to Chicago being made in 26 hours. On the return trip it will leave Chicago in the evening.

#### New Postal Car Routes.

The Post-Office Department has decided to order railway postal car service between the cities of Pittsburgh and St. Louis, via the Pan Handle and Vandalia route, passing through Indianapolis. The railroad companies will immediately provide the requisite cars, and the service will be begun as soon as the Department can make the necessary arrangements in regard to clerical labor and alterations of existing schedules, etc. By this means it is calculated that the present postal facilities of a very large portion of the Ohio and Mississippi valleys will be greatly augmented and improved.

#### New Jersey Southern.

Some time since Jay Gould filed in the New Jersey Court of Chancery a demurrer to the bill of foreclosure now being sued out by the trustees under the first mortgage. The demurrer presents the following questions: 1. Whether the company had power when the mortgage of the complainant was executed to mortgage personal property, not then owned by them, but which they might afterward acquire. 2. Whether the stock of the Long Branch & Sea Shore Railroad Company claimed under that mortgage does not belong to the creditors of the company if it does not belong to the demurrant. 3. Whether, if the mortgage does cover that stock, should it not have been filed as a chattel mortgage.

In Trenton, Oct. 19, the Chancellor gave his decision overruling the demurrer. The old Raritan & Delaware Bay road was sold under foreclosure and bought by the trustees, who transferred it to the New Jersey Southern Company, their mortgage remaining on the property. These same trustees



are now suing out a new foreclosure. The demurrant had full notice when he took the stock of the complainants' mortgage and of their lien and rights. His attitude in the bill is that of a fraudulent trustee, inequitable seeking to convert the trust funds to his own use.

#### Dividends.

Dividends have been declared by the following companies:  
Baltimore & Ohio, Main Stem, 5 per cent., semi-annual, payable Nov. 1.  
Boston & Maine, 4 per cent., semi-annual, payable Nov. 15.  
Concord, 5 per cent., semi-annual, payable Nov. 1.  
Peterborough (leased by Boston & Lowell), 3 per cent., semi-annual, payable Oct. 20.

#### Port Wallace Branch.

Meetings have been held to advocate the construction of a railroad from Port Wallace, N. S., on Northumberland Straits, to the Intercolonial at Giles Valley and thence to the London-derry Steel Works and Spencer's Point, on the Basin of Minas. The line will be about 26 miles long and it is desired to secure aid from the local Government.

#### St. Joseph & Denver City.

The Purchasing Committee have resolved to modify the agreement of reorganization so that the cost of the foreclosure and reorganization instead of being paid by a cash assessment upon subscribing bondholders will be made a preferred lien upon the road, to be included in the new first-mortgage, but to have a preference over all other bonds. This modification has been submitted for the approval of bondholders.

#### Keokuk & Des Moines.

The new river route, which has been under construction for some months, is now completed and ready for use. It is 11 miles long, leaving the old road at Buena Vista and following the course of the Des Moines River to Sand Prairie, where it rejoins the old road. The new road is substantially built, and is raised far enough above the river to make it safe from freshets. The average grade is only four feet to the mile, and by its use the company will dispense with the two long grades of 60 feet to the mile on the old line. There is one iron bridge of 120 feet clear span, built by the Watson Manufacturing Company, of Paterson, N. J. The contractor for the grading was Mr. Tim Ford, of Keokuk, Ia. The cost of the grading and bridging has been about \$80,000. The old line from Buena Vista to Sand Prairie will be abandoned and the track taken up.

#### Rock Island & Hennepin Canal.

The committee appointed at the Convention held some time since to consider the best means of securing an appropriation from Congress to build the canal has held several meetings in Chicago recently. A number of speeches were made, but no definite conclusions were arrived at.

#### Nashville & Decatur.

At a meeting held in Nashville recently the directors canceled and destroyed \$205,000 of Tennessee & Alabama mortgage bonds which have lately been paid off and retired.

#### Peoria, Pekin & Jacksonville.

A new brick round-house has been begun at Peoria, Ill. It is designed to hold 24 engines when entirely completed, but only one-fourth of the circle will be built at present.

#### Peoria & Springfield.

The freight house at Peoria, Ill., has been lengthened 80 feet in order to give much needed accommodation for the freight traffic. A new round-house with six stalls is also being built in Peoria.

#### Chesapeake & Ohio.

At the hearing in the foreclosure suit before the United States Circuit Court in Richmond, Va., Oct. 22, the answer of the company to the complaint was presented. It denies the charges of improper management and injudicious use of net earnings, sets forth the embarrassments which the managers have encountered, and states the fact that the company's counsel had under consideration a plan for settling the affairs of the company in a manner which would protect all interests. The answer concludes by praying that Gen. W. C. Wickham, Vice-President of the company, be appointed permanent receiver. Mr. McFarland, of New York, counsel for the trustees in the first Chesapeake & Ohio mortgage, together with the counsel for the trustees under second Chesapeake & Ohio mortgage, and for certain bondholders, all united in the prayer for Gen. Wickham's appointment. The State Attorney, Gen. Daniel, in behalf of the State, presented a petition, asking to be admitted as a party to the suit, claiming that the State was guarantor of \$1,000,000 of bonds of the old Virginia Central Railway, now the Chesapeake & Ohio, and was also a holder of \$2,000,000 of bonds and stocks. The State also claimed a forfeiture of the road to itself by reason of non-completion of the road as prescribed by law, and asked the appointment of Mr. Isaac H. Carrington, Receiver. Judge Bond took the papers under consideration, and promised to report his decision in three or four days. Pending the hearing to-day, a telegram from Mr. Bloodgood, of New York, to Judge Bond was read, protesting against the appointment of Gen. Wickham as Receiver, on account of his alleged mismanagement of the road while Vice-President.

#### Western North Carolina.

The stockholders have chosen Col. Sam. Tate Commissioner to act for them with the Commissioners appointed by the Governor, who are W. W. Rollins, of Madison County, W. G. Pearson, of Burke County, and Major Canady, of Wilmington. Under the law passed by the last Legislature of North Carolina, these commissioners are to manage and work the road and to complete it to Asheville and the Tennessee line. They have at their disposal all the convict labor of the State. The road has been formally surrendered to them by the Receiver, Major Smith.

#### United States & Mexican Telegraph.

The President and directors of this company having made a formal application to have the company dissolved, the New York Supreme Court has appointed Robert J. Livingston Receiver, to take charge of the company's property and wind up its affairs. He gives notice that all persons owing the company money, or holding any of its property, must pay or restore the same to him by Nov. 27, and all claims against it must be presented to him at the office of L. L. Delafield, No. 49 Exchange Place, New York, also by Nov. 27.

#### Erie.

The referee having reported the Receiver's accounts as correct, the Court ordered them to be sent back to the referee again until argument could be had on a question involved. It is understood that the point in doubt is whether a strict compliance with the law will not require the referee to examine personally every voucher. This, if required, will throw upon the referee an immense amount of very tedious work.

The Port Jervis (N. Y.) Gazette says: "Important changes with regard to the running of passenger trains on the Delaware and Susquehanna divisions of the Erie Railway will be inaugurated during the coming month. Passenger trains, combining mail and express matter, have heretofore been run by divisions only, but it is now proposed by the managers of the road to alter the programme, and make this new departure one benefit to the travelling public and all concerned."

On the 1st of November, trains 1, 4, 5 and 8 will commence

running between Port Jervis and Oswego, with same conductor and train men, and trains 3 and 12 between Port Jervis and Elmira, same as above, returning in the same order, all of which to be designated as through trains. Trains 6 and 29 are considered as minor ones, and will continue to be run as before, by divisions. The rotation plan, first in, first out, will be totally ignored, each train having its separate conductor and gang of men. The proposed change is not altogether a new idea, as the same plan was in vogue some years since."

#### Pittsburgh, Fort Wayne & Chicago Railway Mutual Benefit Association.

The annual convention was held at Crestline, O., Oct. 21. A large delegation of members were present from Pittsburgh, Newcastle, Alliance, Fort Wayne, Chicago, and other points on the line of the railroad, representing 36 divisions of the association. The address of the President and reports of General Secretary and Treasurer showed a very prosperous condition of the association. The proceedings of the convention occupied the afternoon, and were harmonious throughout. After re-electing the old officers, the convention adjourned to meet in the same place next October.

#### Chicago & Pacific.

R. M. Hough, who was perhaps the most active projector of the road, has begun suit against this company, Thomas S. Dobbin and others to recover his alleged share in the profits resulting from the building of the road. He asks for the appointment of a receiver and a general accounting.

#### Burlington & Southwestern.

The compromise agreed upon by the parties in interest, by which General Baker, the Receiver appointed by the United States Court, and Mr. McKitterick, the Receiver appointed by the Iowa Court, were both to retire, has been carried out. The United States Circuit Court has appointed Mr. Elijah Smith, President of the company, Receiver, and Mr. McKitterick, who has been in possession, has turned over the property to him. Mr. Smith is said to represent the bondholders, and it is also said that they will at once advance the money to complete the gap between the northern end of the road at Unionville, Mo., and the southern end at Acornville. This distance is about 30 miles, which is all or nearly all graded, and some track is laid from Unionville southward.

#### Pacific, of Missouri.

The committee appointed by the stockholders held last week several conferences with the officers of the Atlantic & Pacific Company. The following statement of earnings of the road for 9½ months, from Jan. 1 to Oct. 14, was submitted:

	1875.	1874.	Decrease.	P. c.
Freight.....	\$1,287,236	\$1,824,760	\$537,524	29.5
Passengers.....	831,875	897,096	65,221	7.3
Other sources.....	136,766	137,018	252	0.2
Totals.....	\$2,255,877	\$2,858,874	\$602,997	21.1

During the same time the earnings of the lessee from its own road were \$974,518, a decrease of \$73,634, or 7 per cent., from 1874. The decrease is attributed largely to failure of crops from grasshoppers and other causes.

The conference committee reported to an adjourned stockholders' meeting in New York Oct. 25. The report says that during the three years and three months of the lease the rental charges have exceeded the net income of the Missouri Pacific by \$474,712.13, not including the dividend now in default, and \$200,000 taxes due and unpaid. During the same period the lessee has paid for floating debt of leased line, taxes due at time of lease, construction of the Carondelet Branch and other leased lines, together with permanent improvement of main line with steel rails, iron bridges and new machine shops, including interest on floating indebtedness, the sum of \$3,837,506.92; for which it has received from transportation accounts and miscellaneous sources (prior to June 29, 1872) \$741,908.40; and from the sale of \$500,000 Carondelet Branch bonds, \$1,500,000 income bonds, and \$646,000 third-mortgage bonds, the sum of \$1,788,371.23, making a total of \$2,530,279.63, which leaves a balance still due Atlantic & Pacific Railroad Company of \$1,297,227.29, they holding for same \$1,854,000 unsold third-mortgage bonds, and about \$100,000 of Carondelet Ferry stocks. The whole embarrassments of the company have arisen from the falling off of earnings during the last year.

The committee recommend that stockholders take the \$1,854,000 unsold third-mortgage bonds at 75. In that case the floating debt could be retired, and by the stockholders foregoing their rental for a few years, they have no doubt that, with proper management, the future growth of business on the road will in time make their stock of value; otherwise the third-mortgage bondholders (the most of whom are floating debt creditors) may ask for their rights, and in that case take the property. In any event, they recommend that, if the leases of the several branches (excepting, perhaps, the Carondelet) cannot be cancelled, they be so modified as not to prove a loss to the company in operating them.

After a long discussion it was resolved that a committee of bondholders and stockholders of the road should be appointed to agree upon a plan for the reorganization of their interests, and come to a proper understanding as to how far their interests assimilated.

#### Prince Edward's Island.

This road now has 197½ miles of main line and branches, and is running one through train each way daily over the main line, besides six local trains. The grain business just at present requires the entire equipment; this press of traffic lasts about six weeks. Orders have been given to build in the shops this winter 50 flat, 50 box and 6 conductors' cars, besides which about 50 box cars will be ordered at outside shops.

There is considerable agitation in the island just now on the subject of branches to various coast towns and villages not on the line. The Government is called on to build a branch 11 miles long to Cape Traverse, one 20 miles long to Murray Harbor, and another 18 miles long to Belfast, all thriving coast towns but having no connection with the road, which was especially designed to serve the interior districts of the island.

#### Pittsburgh, Washington & Baltimore.

Previous to Oct. 1, all the oil shipped from Pittsburgh east by this road was either brought to it by teams or by boats, an elevator having been built purposely to accommodate the latter shipments. Since Oct. 1, however, an arrangement has been made by which this company delivers its cars to the Pennsylvania at Brinton's, outside of Pittsburgh, and that company hauls them to the refineries, most of which are on the line of the Allegheny Valley road in and near Pittsburgh. The cars are there loaded direct from the refinery, and returned to the Baltimore road by the same route. The Pennsylvania receives \$5 per car for hauling from Brinton's to Pittsburgh and back.

#### St. Louis, Kansas City & Northern.

The St. Louis County Court has granted this company permission to extend its tracks to the Union depot and the bridge on the route chosen upon certain conditions. The work must be begun by Nov. 1 and steadily prosecuted until it is completed. No more obstruction must be made to highway travel than is absolutely necessary in the work of construction. The company must pave and keep in order that part of any street which may be occupied by its tracks and 10 feet on each side. It must change the grade of its track when necessary to conform to a change in any street crossed and must agree to build bridges over its track for any street that may hereafter be laid out to cross it. The track must be laid so as to pass under

King's highway, Cass avenue, Duncan avenue, Barnes avenue, St. Charles Rock road, Natural Bridge road, and over Manchester road and Florissant road. All the work must be done under the supervision of the County Engineer, and the company must file its acceptance of these conditions within 30 days from Oct. 19.

The line chosen leaves the main line at Ferguson station, crosses to Forest Park, and then follows the line of the St. Louis County Railroad to the Union depot.

#### Intercolonial.

The gap of 25 miles between Fraser's and the Forks of Metapedia has been closed and the line is now complete from Moncton, N. B., where it leaves the Halifax & St. John line, to Riviere du Loup, P. Q., where it meets the Riviere du Loup Division of the Grand Trunk. Mr. Brydges and other officers of the road passed through over its whole length last week. The formal opening will not take place nor will regular trains run through for some time yet, but trains will begin running from Moncton as far as Campbellton on the Restigouche, at the northern boundary of New Brunswick, early in November.

#### Little Rock & Fort Smith.

A Little Rock dispatch says that a contract has been let for the completion of the 45 miles of road from the present terminus at Altus, Ark., to Fort Smith. The recent sale of bonds by auction in Boston has supplied the company with the funds necessary to do this work, which must be completed by next Spring to save the land grant.

#### New Jersey Midland.

The bondholders held their adjourned meeting in New York Oct. 21, and out of the three schemes before them, voted to adopt the Balestier plan with some slight modifications. This provides for a foreclosure, the formation of a new company and the issue of five classes of securities, as follows:

1. A first mortgage of \$500,000, the proceeds to be used for putting the road in good order and equipping it; the right to be reserved to issue an additional \$500,000 to provide terminal facilities.

2. New bonds for \$3,000,000 to be exchanged for the present first mortgage, with coupons cut off up to Feb. 1, 1879.

3. Stock to be exchanged for the coupons of the first mortgage, already over-due, and those of the new bonds which will become due up to 1879.

4. Income bonds to be exchanged for the second-mortgage bonds and unpaid coupons, to draw interest only after dividends have been paid on the stock.

5. Scrip No. 1 to be issued for the third-mortgage bonds and floating debt; to draw interest after the income bonds.

6. Scrip No. 2 to be issued for 40 per cent. in amount of the present capital stock, to draw interest only after No. 1.

Bondholders are requested to deposit their bonds with the Central Trust Company of New York before Dec. 1, with an assessment of 0½ per cent. to pay legal expenses.

#### Louisville, Cincinnati & Lexington.

The earnings and expenses of this road for the month of August are reported by the Auditor, Mr. Wm. Mahl, as follows:

Receipts from passengers.....	\$43,373 77
" " freight.....	43,985 47
" " express, mail, etc.....	6,522 30
Total earnings.....	\$93,881 54
Operating expenses (75.83 per cent.).....	71,293 57
Net earnings.....	\$22,587 97
Rentals and guarantee.....	\$4,989 55
State tax.....	1,451 25
Construction and other expenses.....	281 65
	6,722 45

Net profits subject to the order of the Court..... \$15,865 52

In the statement of the Receiver's report given in the Railroad Gazette of Oct. 16 an error caused the statement to read that the expenditures were \$53,339.81 in excess of the receipts, when the reverse was the case, as, indeed, could be readily seen by the figures given.

#### Chicago, Burlington & Quincy.

The following statement of the earnings for the first eight months of the current year has been published:

	1875.	1874.	Inc. or Dec.	P. c.
January.....	\$860,944 52	\$870,724 99	Dec.	\$9,780 47 1.1
February.....	764,163 29	755,325 61	Inc.	8,837 68 1.2
March.....	920,922 63	891,858 22	Inc.	29,064 41 3.3
April.....	979,550 45	946,125 49	Inc.	33,424 96 3.5
May.....	989,084 55	1,004,592 93	Dec.	15,508 37 1.6
June.....	948,104 97	1,060,268 87	Dec.	112,163 90 10.6
July.....	943,462 78	884,013 30	Inc.	59,449 48 6.7
August.....	1,056,356 85	1,161,358 58	Dec.	94,999 72 8.2
Totals.....	\$7,472,610 06	\$7,574,365 99	Dec.	\$101,755 93 1.3

The slight increase of the first five months was much more than overcome by the falling off in the three months of heaviest traffic. The statement is, however a very favorable one.

#### Cairo & St. Louis.

The operations for the month of August are reported as follows:

Gross earnings (\$172 per mile).....	\$25,089 33
Working expenses (78.18 per cent.).....	19,608 78
Net earnings (\$37 per mile).....	\$5,471 55
Extraordinary expenses, rentals, etc.....	2,511 66

Net profit..... \$2,959 89

The mileage of passenger trains was 10,426 miles; freight, 7,618; coal, 8,994; total 27,038 miles. The average receipts per passenger train mile were \$0.7253; per freight train mile, \$1.1988; per coal train mile, \$0.9321.

Trains are now running through to Cairo, and there is no present danger to the embankment and levee north of that city.

#### Kansas City, St. Joseph & Council Bluffs.

On appeal from the decision of the lower court the Iowa Supreme Court has dissolved the injunction prohibiting the company from running its trains through to Omaha over the Missouri River bridge, and ordering it to comply with the act of the Iowa Legislature which requires a transfer at Council Bluffs. The Court holds that this act of the Legislature is void, as it operates to impede commerce between the States and therefore conflicts with the constitution of the United States.

#### Toronto, Grey & Bruce.

This company, which built the second narrow-gauge railroad of considerable length in America (3 ft. 6 in. gauge), financially is a failure. The earnings for the year ending with June, with a length of 167 miles during the first half and 193 during the last half of the year—an average of 180 miles—were \$331,536, and the expenses \$258,104, or 78 per cent., and the net balance was only \$73,434, while the interest payable was \$107,680. The receipts were \$1,842, the net earnings \$408, and the interest due \$598 per average mile worked. An unusually severe winter made the expenses greater and the earnings less than they would have been otherwise. The road was begun in October, 1869, and the cost of the 193 miles has been about \$20,000 per mile. At the late annual meeting the President said the floating debt was becoming unbearable, and proposed that the Government aid the company in paying it off. The bonded debt now is \$1,600,000, which is about \$8,290 per mile. The President thought that the company would escape from its







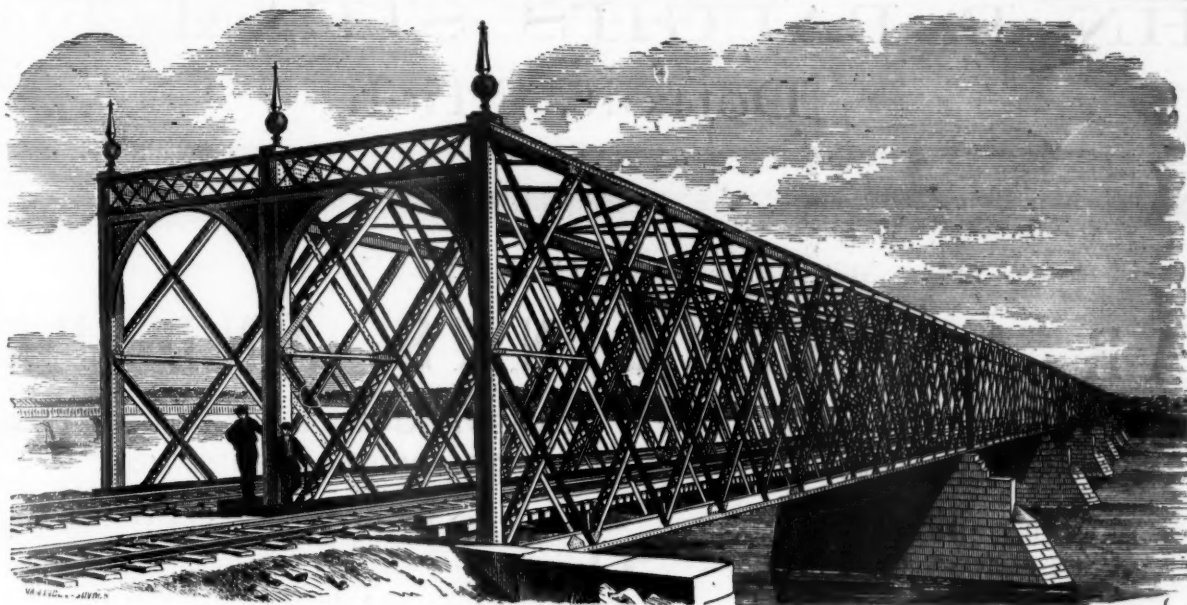




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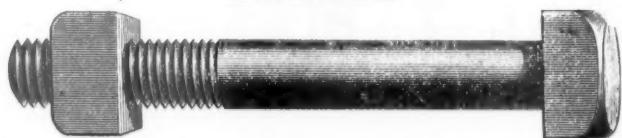


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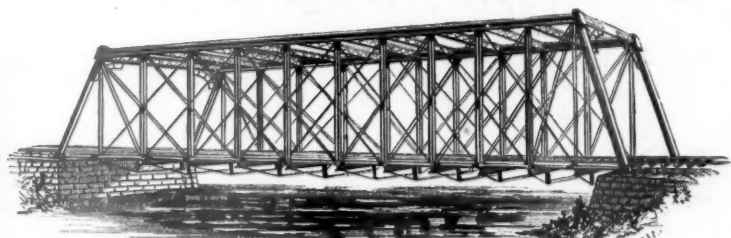
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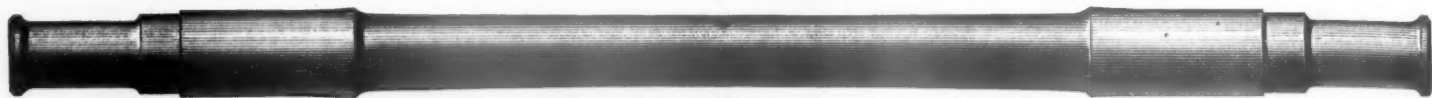
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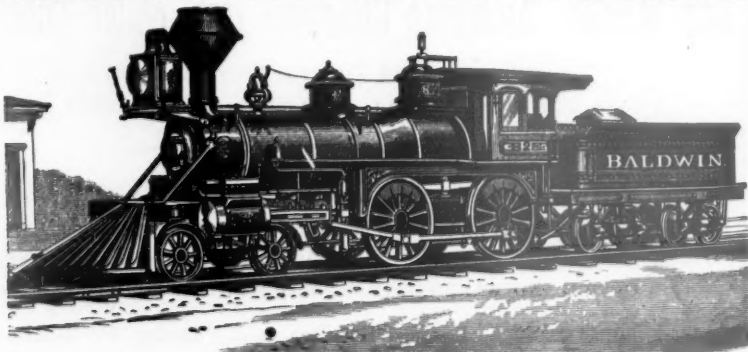
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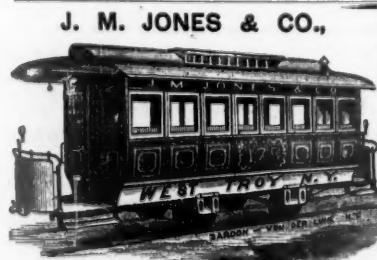
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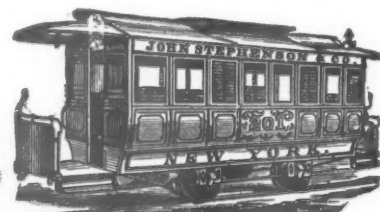
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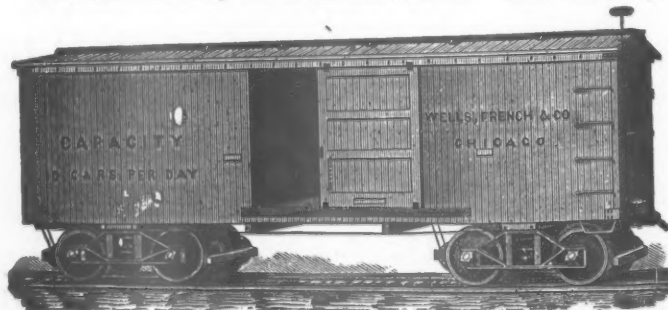
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